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Fee £7 7 0.

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Complete Course	£3	3	0
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(a). By enlarging the Chemical and Analytical Laboratory, so as to provide accommodation for additional Students and to enable the Company to undertake Commercial Analyses, which (owing to the central position of its Laboratories) are offered to the Company by many professional and commercial firms. It is fully believed that a considerable income will be derived from this source.

(b). By constructing a first-class Pharmaceutical Laboratory for preparing and purifying Drugs and Chemicals on such a scale as to make the products (in marketable quantities) yield a revenue which shall be in addition to the fees received from Students using the Laboratory.

(c). By adding to the business of the Company that of Wholesale and Retail Chemists and Druggists, for which purpose arrangements have been made by which a most desirable shop on the ground floor of the Company's premises has been acquired upon satisfactory terms.

The Business of the Company has steadily increased, and dividends at the rate of 5 and 7½ per cent. were paid for the years 1889 and 1890 respectively, in addition to which considerable additions were made to the plant, etc., out of profits.

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The contemplated extension of the operations of the Company will, the Directors feel assured, greatly increase the profits, while the working expenses will not be materially increased.

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April, 1891.

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MR. CHARLES TURNER, F.C.S.

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It is also to be noted that Thirty-four M.C.P. men passed the Minor at the four examinations ending in February, 1891, while only Thirty-three passed at the corresponding examinations of the previous year.

The Next Session will begin on September 1st.

Full particulars are given in the Copyright Prospectus of the College, which will be sent to any address on application.

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The Lectures, Classes, and Laboratory Course are thoroughly comprehensive, covering the whole of the ground required by the Extended Schedule.

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" F. W. FOWLES, Liverpool	" JAS. MIDDLETON, London
" C. E. JONES, Liverpool.	" J. W. THOMAS, Beaumaris

JANUARY 'MINOR.'

Six sent in, 5 passed, viz:—

Mr. J. J. CLARKE, Liverpool.
 " J. A. RILEY, Seaforth.
 " E. D. JONES, Llanrhaeadr.
 " W. LATHAM, Crewe.
 " W. WALKER, Leicester.

FEBRUARY 'MINOR.'

Six sent in, 4 passed, viz:—

Mr. R. G. BREESE, Merthyr Tydfel.
 " R. C. COWLEY, Douglas.
 " B. C. LLOYD, Flint.
 " H. C. MORGAN, Liverpool.

Two-thirds of all these passed at their first attempt. . . . Mr. Riddle passed both the Minor and the Major from here at the first attempt.

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Syllabus, with Pass Lists, Fees, &c., sent post free on application to the Principal.

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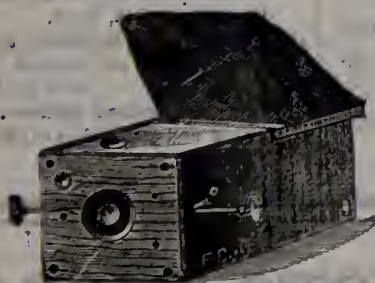


Fig. 13.

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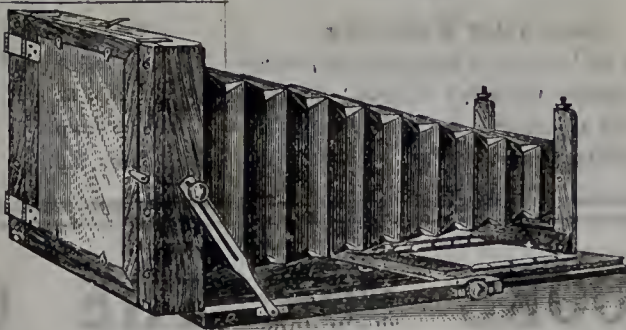


Fig. 14.

DARTON'S IMPROVED DOUBLE EXTENSION
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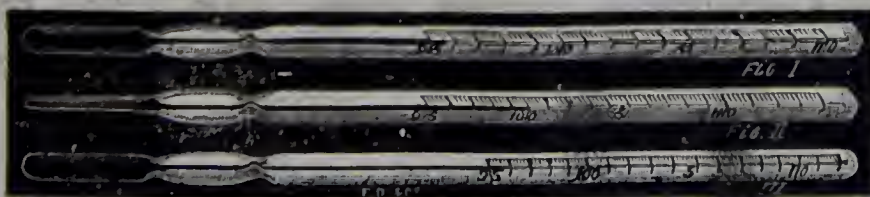


Fig. 1.

Fig. 2.

Fig. 3.

Fig. 19.

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All our Seltzogenes are manufactured on the well-known "Fevre" System, and each one is thoroughly tested before leaving our works.



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SYPHONS ... 1/6 1/8 and 1/10 each.

SELTZOGENES.

1	2	3	4	5	8 pint.
5/6	6/2	7/	8/	9/11	15/6 each

SYPHONS & SELTZOGENES PORCELAIN LINED HEADS.

NON-METALLIC.

Absolute Purity of the Water ensured.
Suitable for all kinds of beverages, sweetened, medicinal, or otherwise. Each Syphon and

Seltzogene guaranteed.

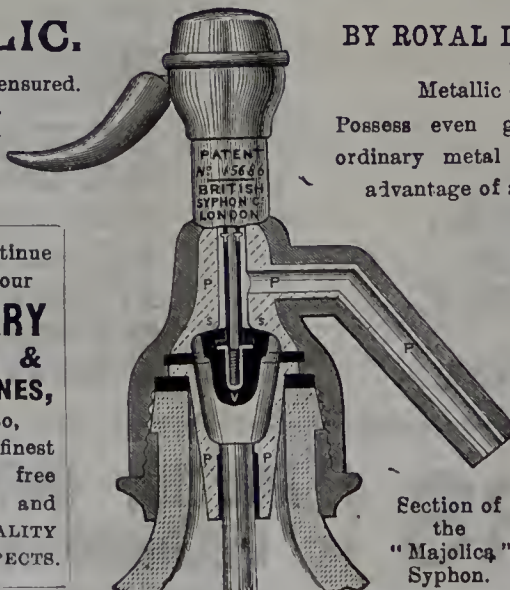
BY ROYAL LETTERS PATENT, No. 15686.

Metallic contamination utterly impossible.

Possess even greater strength and durability than ordinary metal heads, combined with the immense advantage of always being clean and non-oxidisable.



We still continue to warrant our
**ORDINARY
SYPHONS &
SELTZOGENES,**
as hitherto,
to be of the finest
tin, entirely free
from lead, and
FIRST QUALITY
IN ALL RESPECTS.



Section of
the
"Majolica"
Syphon.

WRITE
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THE ENTIRE
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Particulars
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THE BRITISH SYPHON MANUFACTURING CO.

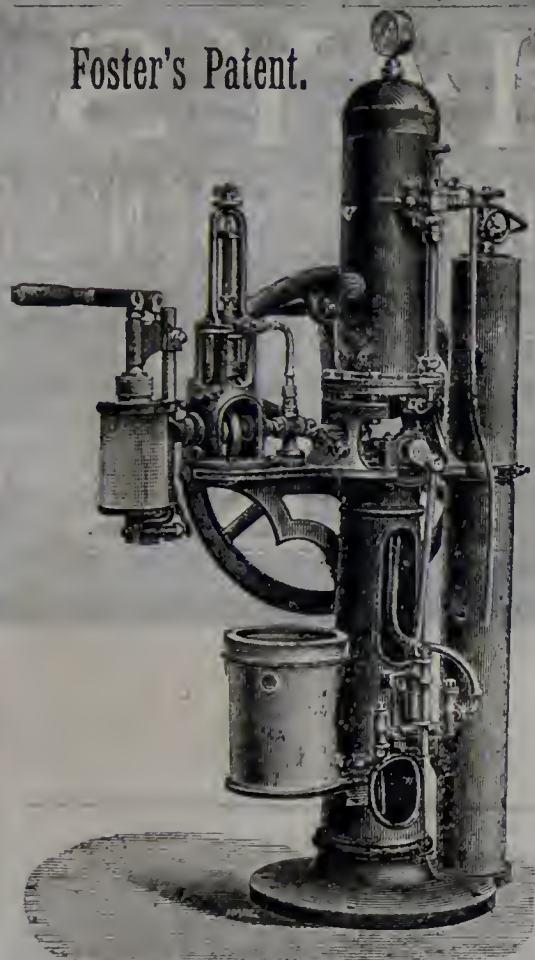
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WORKS-LAMBETH.

SODA WATER MAKING

WITH
LIQUEFIED CARBONIC ACID GAS.

Foster's Patent.



The No. 2 Compact Soda Water Machine.

THE No. 1 "COMPACT" MACHINE

Is specially designed for Chemists and Hospitals, and can be used for either Syphon, Ball-stoppered Bottles, Cork or Seal Bottles.

Producing capacity, by hand power, 60 dozens per hour.

PRICE £55.

Or, if fitted for steam power, 120 dozens per hour, with an extra filling machine.

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(AS SHOWN)

Made on the same principle, but smaller in its capacity.

Producing capacity, by hand, 30 dozens per hour.

PRICE £38.

Or, if fitted for steam, 60 dozens per hour, with an extra filling machine.

Iron Vessel containing an average of } 10s.
28 lbs. by weight of Liquefied Gas } each.

And has sufficient Gas to manufacture about 18 gross of highly-charged Soda Water (10-oz. Bottles), or double this quantity of splits.

A Charge of £3 is made for the Iron Vessel as deposit.

These Machines occupy little space! Are ready for use immediately! They require no fixing! Are self contained and produce soda water, lemonade, &c., of the highest class and greatest purity.

THE "NIAGARA" BOTTLE

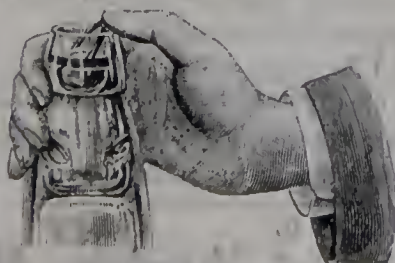
Or Improved Codd's
Is the most perfect Bottle in the Market.
Send For Sample and Compare.

PRICES ON APPLICATION.

Name on Bottles free for orders of 30 gross.
Under that quantity Moulds charged 10s. for each size or shape. Extra Rings 1s. 6d. per Gross.

The patent "Attached Opener" converts the "Codd" type of bottle into the easiest opened of any in the market. It can be instantly fitted; the bottle can be instantly opened; it can be opened without danger; it can be opened by a child; and it does away with the separate opener. Price 3s. per gross.

Tongs for fitting same 3s. each.



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"LONDON-MADE"

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(Title Registered)

AND SUPPORT BRITISH INDUSTRY.

It is the cheapest, strongest, hand-somest, and best in the World.

Pure Black Tin Tops

PRICE 1/6 EACH.

Nickel-plating Tops from 4d. each.

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HOLLOWAY'S PILLS & OINTMENT*Have the Largest Sale of any Medicine in the World.*

MANUFACTURED ONLY AT

Professor HOLLOWAY'S Establishment,
78 New Oxford St. (late 538 Oxford St.), London,And sold at 1s. 1½d., 2s. 9d., 4s. 6½d., 11s., 22s., and 33s. each Box or Pot.
Chemists and Druggists selling "Holloway's Pills and Ointment" can
on application to the above address, or to the Wholesale House with whom
they deal, be supplied free of charge with Handbills and Posters with their
name and address printed at foot.*Wholesale Terms see List of "Proprietary Articles" in most Price Currents.*

Natural arsenious and

Guber Spring
ferrugineous
Mineral-water.
BRIBRENICA in Bosnia.Will be found of great value in the treatment of
Anaemia, Chlorosis, Intermittent fever,
Malaria, Diseases of the Nerves, &c.**Easily to digest.****HENRY MATTONI, VIENNA.**

Write for pamphlets and particulars to

W. BEST & SONS,

22, Henrietta street, Cavendish square,

LONDON, W.

To be had of all Chemists and Druggists.

20 AERATED WATER MANUFACTURERS

HAY'S

SOLUBLE ESSENCES

ARE GUARANTEED TO BE THE FINEST IN THE MARKET

GINGER. HOR. LEMON &c &c

W. HAY, MANUFACTURING CHEMIST

HULL

IN ORDERING SPECIFY HAY'S MANUFACTURE



WE OFFER to send 1½ dozen DE CARLE'S SOLID FRUIT JUICES, Carriage Paid, with Showcard, Handbills, &c., to retail at 4½d. (assorted flavours, Lemon, Orange, Raspberry, Cherry, Pineapple, &c.), for 5/3. It will not pay us, but we know for certain that it will lead to further business, for all who have once sold them repeat their orders.

It is just this: a packet at 4½d., with 1 lb. Sugar and ½ pint Boiling Water, will make 1½ pint of Superb Fruit Syrup, unsurpassed by any, for SEVENPENCE.

NOTE THIS.—We will supply Printed Advertising Matter, Free Samples, &c., to any Chemist who will take the Agency, and make it worth his purpose to do so.

FULL PARTICULARS OF

DE CARLE & SON, Manufacturing Chemists, NORWICH.

DE CARLE'S SOLID FRUIT JUICES may be obtained of Barclay & Sons, Sanger & Sons, Edwards, Sutton & Co., Hovenden & Sons, Newbery, May Roberts, and all London Houses; also of Foggitt, Thirk; Evans, Gadd & Co., Exeter.

NEW ESS. LEMON, ORANGE, ETC.

IT is with great pleasure that we have again the opportunity of addressing our numerous friends on the subject of **NEW ESSENCE OF LEMON.**

It is now two years since it was our privilege to inform the trade that we had started a factory in Messina, for the manufacture of the above article. As we fully expected, our bold venture caused our competitors, both here and elsewhere, to raise an opposition against us of a most bitter, unfair, and unscrupulous character. We venture to think that nothing could have been more satisfactory to ourselves that this opposition was raised, for, instead of doing us the injury that was intended, it has been the means of drawing the attention of buyers to our article, thereby causing a considerable number of Consumers with whom we had not hitherto done business to consider the advisability of trying our quality, with the result that they have found it, as we have so emphatically stated on previous occasions, of **vast superiority over anything that has been shown on this or any other market.**

We can boast of a success in our **"W. J. B. SPECIALITY ESSENCE OF LEMON"** such as we did not dare to anticipate, our sales during the last season having far exceeded our calculations. But the point upon which we are specially elated is, consumers are more and more becoming fully acquainted with its superiority, and those who have hitherto purchased the lower qualities from us and others, after due examination, are one by one being convinced of its advantages and converted to its use. What then are its great qualifications? Simply that it is made carefully and well, from **SELECTED FRUIT ONLY AND ABSOLUTELY PURE.** Although somewhat higher in price than the qualities usually called "the best," its greater strength makes it cheaper in use, imparting, at the same time, a far superior flavour.

With regard to the ordinary commercial qualities, we claim also to be exceptionally placed; being on the spot we are enabled to take advantage of favourable markets.

Finally, we wish to mention a few words on the prospect of the crop, which, we regret, does not seem at all brilliant at present. Our friends will no doubt have seen, by our various market reports, the crop of lemons is now ascertained to be unusually limited, and the quality of the fruit being exceptionally good, a larger quantity than usual will be used for packing. Therefore, in the absence of "refuse lemons," from which the ordinary Essence is made, both Essences and Lemon Juice must be dearer as the season advances; anything like a repetition of last year's figures is out of the question.

We have received overland by Grande Vitesse a small copper, the first manufactured this season at our works, Villaggio Gazzi, Messina, and the exceptional quality of the fruit this year will enable us to offer a **PERFECT ARTICLE.**

One of our partners is in Messina as usual, superintending the manufacture.

W. J. BUSH & CO.

ARTILLERY LANE, LONDON.

"MYRTLE GROVE" TOBACCO

In 1-oz., 2-oz., and 4-oz. Packets, and $\frac{1}{4}$, $\frac{1}{2}$, 1 lb, Tins only.



TADDY & CO., 45 Minories, LONDON

ESTABLISHED 150 YEARS.

SNUFF, TOBACCO, AND SEGAR MANUFACTURERS.



Write for List of Specialities.

J. RAPHAEL & CO.,

CHEAPEST HOUSE IN THE TRADE FOR

SPECTACLES, FOLDERS, FIELD, OPERA, AND MARINE GLASSES.



Repairs and Post Orders Despatched Same Day.

13 OXFORD STREET. LONDON. W.

LEMON-RASPBERRY.

A delicious beverage, non-alcoholic and perfectly pure; guaranteed to be prepared from fresh and specially selected Fruit only.

LEMON-RASPBERRY is unrivalled for use with Mineral Waters.

LEMON-RASPBERRY is bottled in special bottles, and is attractive in appearance and agreeable in flavour.

Samples and quotations may be obtained on application from the
Sole Manufacturers,

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ROBINSON & WORDSWORTH, VICTORIA WORKS, PONTEFRAC, T

Makers of the Finest Quality of LIQUORICE GOODS, Genuine Medicinal POMFRET CAKES.

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NAIL ROD, CASTLE BRIDGE, LIQUORICE JUJUBES,

In 4-lb. Tins, and a Large Variety, &c. QUALITY GUARANTEED.

MILLAR'S BRITISH WINES.

ORANGE (suitable for Quinine), GINGER, RAISIN, COWSLIP, CHERRY, &c.

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Should make application at once to their Wholesale Houses, or

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DENTIFRICE.

THE LANCET.—Extract from "ANALYTICAL RECORDS" reports:—"Salvine Dentifrice is a delicately scented paste, which exhibits an Alkaline reaction to test-paper. It is perfectly free from injurious elements. From its composition it is evidently ANTACID, ASTRINGENT, and ANTI-PARASITIC. Salvine is contained in Collapsible Tubes, the use of which offers OBVIOUS ADVANTAGES."

Put up in a novel and attractive manner. Price 1/, 1/6, and 2/6.

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IN TREATMENT OF
CHRONIC CONSTIPATION,
 Lithemia, all Female Disorders (especially as first laxative after accouchement),
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The "FRANZ JOSEF" WATER is now prescribed by the leading Physicians in Great Britain and abroad.

It is particularly requested that those Chemists not already in possession of the Artistic Show Card of "Franz Josef" Water, of which the above is a photographic facsimile, but lacking the splendid colouring, will at once write for same.

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Retail Prices, **1/6** and **2/-**.

Of all the Wholesale Houses.

TO THE
CHEMISTS & DRUGGISTS
OF
GREAT BRITAIN.

TELEGRAPHIC ADDRESS:
COLEMAN,
GEORGE'S, NORWICH.

St. George's, Middle St.
NORWICH,
December, 1887.

The Excise Authorities having created a difficulty as to the sale of Medicated Wine containing a certain percentage of alcohol, we obtained in January last, from the Inland Revenue Authorities, permission to sell our WINCARNIS,* or Liebig's Extract of Meat and Malt Wine, **WITH QUININE**, without a Wine Licence, and many Chemists not holding a Wine Licence have sold considerable quantities. In order further to meet the requirements of the trade, we have introduced a Liebig's Extract of Meat and Malt Wine, **NON-Alcoholic**, made from the juice of the Grape, Liebig's Extract of Meat, and Extract of Malt. This also can be **SOLD WITHOUT A WINE LICENCE**. Your orders will oblige either direct or through the Wholesale Houses.

Yours obediently,

COLEMAN & CO., LIMITED.

*N.B.—The Wine is sold in Bottles, 2/9 and 4/6 each.
Trade prices on application.*

P.S.—Where the Magistrate's Certificate is not held we are willing to pay the entire cost of a Retail Certificate (the holder of which can sell any kind of Wines) if an assorted order of 6 dozen is sent us of any of our preparations. List on application. Our WINCARNIS, or Liebig's Extract of Meat and Malt Wine WITHOUT QUININE commands a very large sale, and is recommended by over two thousand medical men who have sent us testimonials in its favour.*

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COLEMAN & CO., LIMITED,
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* WINCARNIS is a NEW NAME, registered to prevent fraudulent imitations.

GEO. MASON & CO.'S
ESSENCE OF BEEF.

HOSPITAL FOR CONSUMPTION, BROMPTON.
Order No. 1080.
"Please supply 120 tins Mason's Essence of Beef as before."



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"Please send at once 3 gross Mason's Essence of Beef."

TRADE MARK.
"O.K." BOUILLON.

The "O.K." Bouillon is the best and cheapest Beef Tea ever put before the public. It is made in England from British Beef. It can be sold as low as 6d. per tin.

CONCENTRATED BEEF TEA, MEAT LOZENGES.

MASON'S MALTED FOOD FOR INFANTS.

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PASCALL'S SILVER CACHOUS
BRILLIANTLY POLISHED.

FRAGRANT AROMA.

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IN ROUND PATENT BOXES, MADE TO RELEASE ONE BY ONE.

QUITE
NOVEL.

PREFERRED
TO ALL
OTHERS.

In 1 dozen
Outer
Boxes.



Most
Saleable

2/3
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In
1-lb. Bottles,
3/6
per lb.

Of the usual Wholesale Houses, and of the Manufacturer,
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Most Delicious Sauce in the World. Bottles, 6d., 1s., and 2s. each

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Delicious Custards without Eggs. In Boxes, 2d., 6d., and 1s. each.

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Best Tonic yet Introduced. Bottles, 6d., 1s., and 2s. each.

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For sums under £1 please remit Postal Order, not Cheque, and oblige,

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AND EXTRACT OF
118 BISHOPSGATE ST. MEAT COMPANY, LIM.,
WITHIN, LONDON, E.C.
TELEGRAPHIC ADDRESS "DENAAYER LONDON."

DISCRIMINATE FOR YOUR CUSTOMERS!

between the fictitious nutritive value of such invalid foods as are mainly composed of Gelatine or the extractive matters of meat, or both, as many so called peptones, meat essences, &c., are, and the true

STRENGTH OF MEAT,

which is not yielded by its GELATINE nor by its EXTRACTIVES, but by the ALBUMINOID matters it contains, and which, by Denaayer's process, are dissolved and converted by pepsine into a delightful and elegant preparation.

See *THE LANCET*, May 2nd; *HOSPITAL GAZETTE*, June 5th; *CHEMIST AND DRUGGIST*, April 16th; *ANALYST*, May 1st, upon Mr. Denaayer's new method for the Analysis of Peptones, whereby the gelatine is capable of determination, whereas this body has hitherto been unavoidably included with peptone albumose by analysts.

Description will best be appreciated with the articles before you, therefore you are invited to send for a free sample of DENAAYER'S STERILIZED PEPTONE OF MEAT (2/- per bottle, ready for use).

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("KAISER FRITZ" BRAND).

Messrs. KENNAWAY & CO. sale of this brand of Beef Wine through- named after the invalid Emperor of be procured. Messrs. Kennaway & Co. margin of profit than can be got on and in addition pay half their licences the same, which they arrange through licences they have never yet failed. necessary for Chemists to hold wine of medicated wines. New licences can immediately



are appointing Chemists as agents for the out the country. This preparation, Germany, is the purest and best that can secure to their agents a much larger other preparations of this description, annually, including cost of obtaining their own solicitors. To obtain these Under Excise regulations, it is now licences if they sell anything in the shape only be got once a year—the time is approaching.

For particulars apply to their Head

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ORIGINAL INVENTORS OF

FLUID EXTRACT OF ANNATTO

INDISPENSABLE TO THE DAIRY FARMER.

ABSOLUTELY PURE & INNOCUOUS.

Contains a Greater Amount of Pure Colour in Solution than any other make.

Leaves no Sediment.



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Used and Valued by Dairy Farmers throughout the United Kingdom, Canada, New Zealand, Australia, and the Cape; also in the United States of America, Sweden, Denmark, France, Switzerland, Italy, and Russia.

PRIZE MEDALS AWARDED.

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 And TOILET REQUISITES.

THE ATTENTION OF THE TRADE IS CALLED TO OUR WELL-ASSORTED STOCK OF

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(TURCO from 1/11 dozen, less 10 per cent. and 5 per cent. cash for not less than 6 dozen.)

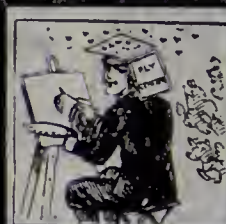
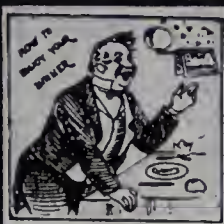
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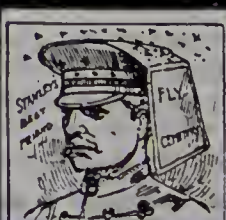
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THE "FLY CEMETERY"

Is the most saleable Fly Paper ever introduced. It is non-poisonous, and the enormous annual increase in the sale of it is positive proof of its popularity. Many Chemists sold more "Fly Cemeteries" last year than they ever did in their lives of all the other fly papers put together.

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CELEBRATED SELTZOGES, SYPHONS, & MACHINERY

CANNOT BE EQUALLED. CONTRACTORS TO
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(Undiluted). IN IMPERIAL QUART AND PINT BOTTLES.

STOWER'S LIME JUICE CORDIAL

NO MUSTY FLAVOUR. 700 MEDICAL TESTIMONIALS. RECOMMENDED BY *THE LANCET*, &c.

STOWER'S { QUININE WINE, carefully prepared as per B. P. Formula.
PEPSINE WINE, made with Pure Unfermented and Unalcoholized Wine.
COCA WINE, do. do. do.
MEAT & MALT WINE do. do. do.

SUPPLIED TO ANY CHEMIST WITH OWN LABEL IF DESIRED.

Sole Proprietors and
Manufacturers,**ALEX. RIDDLE & CO.,** 38 Commercial Street, LONDON, E.

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WALKER & DALRYMPLE'S TEAS.
REDUCED IN PRICE 2d. per lb.

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BROKEN-LEAF TEA, 1s. 6d. per lb.

A MONEY SAVING TEA. ABSOLUTELY PURE.

The small leaf from some of the finest India and China Teas. Produces Tea in the cup, stronger, richer, and cheaper than most whole-leaf Teas. Agents appointed, where unrepresented, throughout the United Kingdom.

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INTERMEDIATE TEA, 1s. 10d. per lb.

BEST at the PRICE EVER SOLD. Great strength, and a most useful Tea where there is a large consumption. Recommended to all who wish to SAVE in their Tea. Agents appointed where unrepresented throughout the United Kingdom.

WALKER & DALRYMPLE'S TEAS.—

AGENTS APPOINTED, where unrepresented, throughout the United Kingdom. Prospectus and Samples Free on Application.

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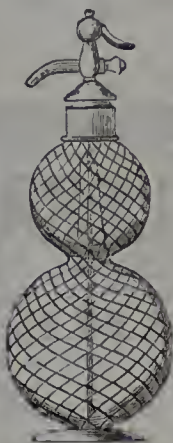
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Werner & Pfeiderer

MORPHIA

Macfarlane J. F., & Co.
Smith, T. & H.

OILS, PAINTS, &c.

Hugh Highgate & Co.
Fox, W., & Sons
OINTMENT BASES
Burroughs, Wellcome & Co.
Chesebrough (Vaseline)
Grindley & Co. (Petroleum Jelly)
Richardson, W. H.
Rowle Bros. & Co.

OPTICIANS

Botwright & Grey
Darton, F., & Co.
Lancaster & Sons
Perkon, Son & Rayment
Raphael & Co.

OTTO OF ROSE

Fuerst Bros.
Morjoseph, A.
Treat, R. C.

PAPAIN FINKLER

Kuhn, B.

PATENT MEDCNS

Armbrucht, Nelson & Co.
Atkinson & Barber (Infant Preserv.)
Barclay & Sons (Lim.)
Bechham, T. (Pills)
Crook, F. B.
Edwards & Son
Evans, Leachler & Webb
Penning's (Powders)
Globe Chemical Co.
Goodall, Backhouse, & Co.
Guy's Tonic
Holloway (Pills and Oint.)
Hughes & Hughes
Lalor (Phosphodyne, &c.)
Lampson, H. (Lim.)
Lincoln (Clarke's Mix.)
May, Roberts & Co.
Newbery & Sons
Radam's Microbe Killer Co. (Lim.)
Richards, n. W. W.
Roberts & Co. (Fo 92 n)
Squibb (Lim.)
Sutton, W., & Co.
Thompson, Walters, Hole & Co. (Lim.)
Vogeler, The Charles A., Co.
Widdox & Co.
Wilson, A. (Bunter's Nervine)

PATENT AGENTS

Horn & Son
Thompson, W. P., & Co.

PEPPERMINT OIL

Cocking & Co.
Miller, J., & Co.

PEPSINE, &c.

Burroughs, Wellcome & Co.
Chassaigne & Co.
Fletcher, Fletcher & Stevenson
Greiff, R. W., & Co.
Newbery, F., & Sons (Ingluvin)
Parkes, G. J. R.
Stern, G. & Co.
Warner & Co. (Ingluvin)

PERFUMERY, FANCY SOAPS

Bayley & Co.
Blondeau & Cie.
Bohman, F.
Brjoks, T.
Burroughs, Wellcome & Co.
Chesebrough Manufacturing Co.
Chilswick Soap Co.
Coward, G. F., & Co.
Durrant, Geo. & Ewen (Soaps)
Evans, Sons & Co.
Parina, J. M.
Giraud Fils
Greenhill, T. S., & Son
Johnson & Co.
Legrand, L.
Mann, C. A., & Co.
Mourard, J.
Newbery & Sons (Berdoes)
Ottlinger, E.
Pears' Soap
Price's Patent Candle Co.
Rosmarine Manufg. Co.
Sainsbury, S. (Lav. Water)
Schlesinger, L.
Shirley, A.
Thomson, Walters, Hole & Co. (Lim.)
Tidman & Son
Treat, R. C.
Truett, H. P. (Lim.)
Warrick Brothers
West, T. (Okell's Morn)
Woolley, Sons & Co. (Powder)
Young, R. D.

PEROX. OF HYDR

Robbins & Co.

PETROLEUM

Grindley & Co. (Jelly)
Hamilton & Co. (Lim.)
Snowdon, Sons & Co. (Jelly)

PHARM. PREPS.

Allen & Hanburys
Barron, Harveys & Co.
Berger, P.
Boehm, F.
Burgoyne, Burdidge & Co.
Burroughs, Wellcome & Co.
Chassaigne & Co.
Duncan, Flockhart & Co.
Elton & Co.
Fellows
Perris & Co.
Fletcher, Fletcher & Co.
Giles Schacht & Co.
Greiff, R. W., & Co.
Green, C., & Co.
Heaton, Squire & Francis
Hewlett & Son
Hill, A. S., & Son
Hooper, B., & Co.
Howards & Sons
Jeyes Sanitary Compounds Co.
Jordan & Co.
Keith & Co. (Conc. Tinctures)
Kolomann, Gragze
Layng, R. C.
Lambert Pharmacal Co.
Martindale, W.
May & Baker (Lim.)
Morjoseph, A.
Potter & Clarke
Rankin & Borland
Riegels & Co.
Roberts & Co.
Southall Bros. & Barclay
Sutton, W., & Co.
Sykes & Co.
Tyrer, T., & Co.
Walt, Alfred & Sons
Willows, Francis & Butler
Woolley, Sons & Co.
Wyleys & Co.

PHOTOGRAPHIC

Botwright & Grey
Darton, F., & Co.
Fallowfield, J.
Greiff, R. W., & Co.
Houghton, G., & Son (Chem.)
Howards & Son (Chemicals)
Lancaster, J., & Son
Marion & Co.
Orme, J., & Co.
Perkon, Son & Rayment
Tyrer, T., & Co.
White, Alfred & Sons

PILL MACHINES

Pindar, J. W.
Toogood, W. (Coater)
Werner & Pfeiderer

PILLS (Coated, &c.)

Allen & Hanburys
Anderson Apothecaries Hall
Bechham, Thomas
Blair's Gout Pills
Cartor's Little Liver Pills
Champion, A., & Co.
Eade's Gout Pills
Evans, Sons & Co.
Heaton, Squire & Francis
Hill, A. S., & Son
Holloway's
Jackson, W. & H.
Lloyd, T. Howard & Co.
McKesson & Robbins
Newbery & Sons
Robinson's
Wand, S.
Warner, W. R. & Co. (Coated)
Wyleys & Co.

PILL MACHINES

Pindar, J. W.
Toogood, W. (Coater)
Werner and Pileiderer

PLASTERS

Evans, Sons and Co.
Johnson and Johnson
Mather, W.
Quillham, J., and Co.
St. Dalmas, A.
Seabury and Johnson
Thompson, M. F.
Young, H.

PODOPHYLLIN, &c.

Keith, B., and Co.
Smith, T. and H., and Co.

POLISHING

Beckett, S.
Bradley & Bourdas (Albatum)
Eay and Co.
Fordham, W. B., and Sons
(Limited)
Oakley, John, and Sons

PORCELAINGOODS

Toogood, (E.C. Pots, regist.)

PRINTING

Bowers Bros.
Corran, J. R. (Glass)
Ford, Shapland and Co.
Silverlock, H.
Townsend, J.

PUMILINE

Stern, G. and G.

QUININE SALTS

Greeff, R. W., and Co.
Howards and Sons
Kuhn, B.
Zimmermann and Co.

RENNET

Duncan, Flockhart and Co.
Greeff, R. W., and Co.
Oldfield, Pattinson and Co.

SACCHARIN

Allen and Hanbury
Burroughs, Wellcome and Co.

SALICIN

Macfarlan and Co.
Smith, T. and H., and Co.

SALICYLIC ACID

Burgoyne, Burdidge and Co.
Fuerst Bros.
Zimmerman, A. and M.

SALOL

Kuhn, B.

SALT

Stern, G. and G. (Pepealia)
Tidman and Son

SAUCES, PICKLES

Goodall, Backhouse and Co.
Mason, G., and Co. (Lim.)
Tyrer, P.

SCHOOLS, &c.

City School of Chemistry and
Pharmacy (Lim.)
Liverpool School of Pharmacy
London Homoeopathic and
Medical School
Manchester College
Northern School of Pharmacy
South London School of
Pharmacy (Lim.)
The School of Pharmacy
Westminster College

SEEDS

Armitage Bros.

SELTZOGENES

Bratby and Hinchliffe (Ld.)
British Syphon Co.
Evans, sons and Co.
Gerant, E., & Co.
Lynch and Co.
May, Roberts and Co.
Theisler, E.

SHEEP DIP

Cooper and Nephews
Fletcher Bros. and Co.
Jeyes Sanitary Compounds Co.
Quibell Bros. Wilkins
Staples Bros. & Co.

SHOP FITTERS

Bowling and Govier
Bygrave, J. and W.
Evans, Sons and Co.
Howlett, S.
Natal, E.
Natal, and Co.
Poths, H., and Co.
Treble, G., and Co.
Yates, W. S.

SOAP

Ayrton and Saunders
Barclay and Sons (Lim.)
Bayley and Co.
Blondeau and Co. (Vinolia)
Bronnley, H., and Co.
Chiswick Soap Co.
Cook, E., and Co.
Ewen, J., and Sons
Fordham, W. B., & Sons (Ld.)
Jeyes' Sanitary Compounds Co.
Lucas and Co.
Pears' Soap
Stern, G. and G.

SPECTACLES

Botwright and Grey
Darton, F., and Co.
Perken, Son and Rayment
Raphael and Co.

SPIRIT

Boord and Son
Burroughs, J. (Pure & Methyl.)
Harvey, J. and W., and Co.
Jones and Co. (Methyl.)
Macnair, A., and Co.
Phillips and Co.
Smith, Stephen and Co.

SPONGE

Creswell Bros.
Evans, Sons and Co.
Peterson, M., and Co.

STAMPS (RUBBER)

Berkley, J.
Hickinson, J.
Pollard, A. W.

STARCH

Beckett, S.
Critchley (Gloss)

STOPPERS

Austin and Co. (Sprinklers)
Barnett and Foster
Molin, C.
Sanders, H. G., and Son
Stimpund Stopper Co.

STOVES

Clark, S., and Co. (Lim.)

SUGAR

Fletcher, Fletcher and
Stevenson
Gibson, R., and Sons
Saukey Sugar Co.

SULFONAL

Burroughs, Wellcome and Co.
Green, R. W., and Co.
May and Baker (Limited)

SURGICAL

Ayrton and Saunders
Bailey, W. H., and Son
Barclay and Sons (Limited)
Cocking, J. T.
Eschmann Bros. and Walsh
Haywood, J. H.
Liverpool Patent Lint Co.
Maw, Son, & Thompson, S.
Robinson and Sons
Sanitary Wood Wool Co. (Lim.)
Schutze, F. and Co.
Thompson, Walters, Hole and
Co. (Limited)
Tidman and Son
Wood, F.
Wood, Vincent

SYPHONS

Barnett and Foster
Bratby and Hinchliffe (Ld.)
British Syphon Co.
Gerant, E., & Co.
Idris and Co.
Kilner Bros.
Theisler, E.

SYRINGES

Bock, O.
De Luca, G. V.
Schouffeld, J. & J. Freres

SYRUPS

Fletcher, Fletcher (Liquors)
Idris and Co.

TABLETS

Corran, J. R. (advertising)

TEA

Henson's Digestive
French and Langdale
Gt. Tower St. Tea Co.
Walker and Dalrymple

THERMOMETERS

Bailey, W. H., and Son
Bock, O.
Darton, F., and Co.
Evans, Sons and Co.
Perken Son and Rayment

TILL

Stokes, G. R. and Co.

TINS

Noskes, B., and Co.

TOBACCO, CIGARS,

CIGARETTES

Singleton and Cole (Lim.)
Taddy and Co.

TOILET

Balm of Bethesda
Evans, Sons and Co.
Fordham, W. B., and Sons
(Lim.)

Hopgood and Co.
Hovenden and Sons (Euxalis)
Lloyd, A. S. (Euxalis)
Mumford, G. S. Quelch, H. C.
Rowland, A., and sons
Truefitt, H. P. (Limited)
Woolley, Sons and Co.

TOOTH PASTE

Jewsbury and Brown
Sutton, O., and Co. (Block)
Willson, A. (Bunter's)
Woods, M. (Areca)

TRADE MARKS

Horn & Son

TRUSSES

Bailey, W. H., and Son
Colwell, H. M.
Evans, Sons & Co.
Haywood, J. H.
Mather, W.
Thompson, Walters, Hole and
Co. (Lim.)
Wood, F.
Wood, V.

URETHANE

Howard and Sons

VACCINATION

Vaccine Association (Lymph)

VALUERS AND

TRNSFR. AGNTS.

Berdce and Co.
Brett, F. J.
Crocker, G. B., & Co.
Orridge and Co.

VASELINE

Chesebrough Manufacturing Co.

VERMIN KILLERS

Penny and Co.
Sawford and Son
Steiner and Co.

VETERINARY

Day and Sons
Day, Son and Hewitt
Elliman, Sons and Co.
James, W. H. (Blisters)
Jeyes' Sanitary Compound
Lakin, W. H. Learner, A. J.
Lloyd, T., Howard and Co.
Rookledge, J. Spratts (Dogs)
Walker, Troke and Co.
Wyleys and Co.

VINOLIA

(Superfatted)

Blondeau and Co.

WEED KILLER

Acme Chemical Co.
Rende Bros. & Co.

WHOLESALE AND

EXPT DRGSTS.

Allen and Hanbury
Barron, Harveys and Co.
Burkoyne, Burdidge and Co.
Bush, W., Son and Co.
Bush, W., and Co.
Clay, Dad and Co.
Coward, G. F., & Co.
Dakin Brothers
Evans, Sons and Co.
Evans, Leacher and Webb
Ferris and Co.
Fox, W., and Sons
Goodall, Backhouse and Co.
Harker, Stag and Morgan
Harrington, W. and Son (Ld.)
Heaton, Squire and Francis
Hewlett and Son
Hill, A. S., and Son
Hodgkinsons, Treacher and Co.
Lothouse and Saltmer
Lloyd, T., Howard and Co.
Macfarlan, J. F., and Co.
Oldfield, Pattison and Co.
Potter and Clarke Symca & Co.
Thompson and Capper
Thompson, Walters, Hole
Co. (Limited)
Walker, Troke and Co.
Willows, Francis and Bulle
Woolley Jas. Sons and Co.
Wright, Layman and Umney
Wyleys and Co.

WINES, SPIRITS

Armour, h, Nelson and Co.
Coleman and Co. (Meat and
Durrant, G. (Orange) (Malt)
Goodall, Backhouse and Co.
Idris and Co.
Kennaway and Co.
Millar, A., & Co. Robinson, B-

SEASONABLE LINES,

Selected from our New Catalogue,

WHICH WILL BE SENT TO ANY CHEMIST ON APPLICATION.

FLESH GLOVES.

Per doz. pairs.

White Turco	...	...	2	0
" " 6d.	...	...	2	8
" " 1s.	...	...	4	6
"Eastbourne"	...	...	3	3
"Hastings"	...	...	3	6
"Morocco"	...	...	4	3
"Niagara"	...	...	5	6
"Victoria"	...	...	6	0

BATH STRAPS.

Per doz.

Fine Calefacio	...	...	8	6
Coarse	...	...	8	6
Hygienic, Rough	...	...	9	0
Loofah on Turco	...	...	10	0

PERFUME SPRAY PRODUCERS.

DOUBLE BALL.

These are very artistic, and sell readily.

No.	Description.	Price per doz
26B.	Crackled Glass, White	22/-
72.	Cut-glass, Amber or Blue	30/-
47.	Buff Opaque Glass and Flowers	31/-
173.	Rainbow-colour Glass, Fancy Shape	31/-
177.	Clear Glass, Fancy Cut...	39/-
144.	Round Bottle, Ruby, with Fancy Figures...	41/-
100.	Ruby Glass, Gold Flowers	44/6
165.	China, Dresden Pattern, Figures on Sides	42/-

SINGLE BALL.

172.	Blue Glass	30/-
26.	Crackled Glass, Coloured	14/6
144.	China, Blue Flowers	21/6

PUMP SPRAY.

Blue Glass Bottle	...	24/-
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SPONGES ON CARDS.

HONEYCOMB or TURKEY.

1d.	Per doz
1d.	0 6
2d.	1 0
3d.	1 6
4d.	2 0
6d.	3 0
1s.	6 0

**PERFORATED TOILET ROLLS.**

6d.	...	...	...	...	Per doz
6d.	...	...	...	...	3 6
8d., 1st quality	...	...	...	...	5 0
8d., 2nd	...	...	...	...	4 0
9d., Thin	...	...	...	...	6 0

FRANCIS NEWBERRY & SONS

(Established A.D. 1746), 1 KING EDWARD ST., NEWGATE ST., LONDON, E.C.

WARRICK

Real Heliotrope ♦♦♦♦♦

Flower-Flavoured Cachous.

Real Violets, Real Roses, Real Jasmin, Real Lavender Cachous.

3/- per lb., splendidly labelled; 4/- per dozen Boxes, gold embossed on calf.

18 OLD SWAN LANE, LONDON, E.C.

BROTHERS.

WHITE AND SOUND TEETH.

JEWSBURY & BROWN'S

ORIENTAL TOOTH PASTE.



This old-established and increasingly favourite Dentifrice has been over Sixty Years before the Public; It is warranted to retain its properties and keep in good condition in any climate. The original and only genuine is manufactured solely by

JEWSBURY & BROWN, Chemists, MANCHESTER,

and is distinguishable by the Trade Mark, printed in red and green, a facsimile of which is annexed. Particular attention should be paid to this guarantee of genuineness, as numerous imitations are offered. Sold universally by Chemists and Perfumers, at 1s. 6d. and 2s. 6d.

The Trade and Shippers supplied by the leading houses in London and elsewhere. Bills and Show Cards forwarded on receipt of address cards and directions for enclosure.

DR. PAUL'S

HIGH-CLASS

MANICURE SPECIALITIES,

Certified as innocuous by eminent English and American Chemists.

CERALINE.	Retail	Wholesale
For tinting Finger Tips, Face and Lips.....	2/6	per doz. 18/-
POUDRE LUSTRALE.		
Gives a brilliant shell-like transparency to the Nails	2/6	.. 18/-
CRÈME CAMÉLIA.		
Restores Rough and Chapped Skins to their original softness	2/6	.. 18/-
NAIL OLEATE.		
Preserves and gives a brilliant polish to the Nails, and prevents Hangnails, &c.	1/6	.. 10/6
CLEANSING FLUID.		
Instantly removes all stains from the surface and underneath the Nails	2/6	.. 18/-
FACE AND HANDS LOTION.		
Softens the Skin and removes all discoloration	4/6	.. 33/-
EMERY BOARDS.		
For bevelling the rough edges of the Nails after use of the file	1/-	.. 7/-

ORANGE WOOD STICKS.

A valuable novelty introduced in Dr. Paul's system of Manicure to apply the "Cleansing Fluid" under the free margin of Nails, and thus avoid the danger of scratching with steel instruments, 7/- per doz. bundles.

CAUTION!—Dr. Paul's Specialities can be obtained at all first-class Perfumers' and Chemists', but many imitations are offered at inferior Stores

WHOLESALE AGENT

OSBORNE, CARRETT. & CO, FRITH STREET, LONDON. WC.

DR. ZIEMER'S

"Alexandra"

Dentifrices.

LOTION. POWDER. PASTE.

1/3 at 9/ per doz.	6d. at 3/9 per doz.	6d. JARS at 3/9 per doz.
2/ .. 15/	1/ .. 7/6	1/ .. 7/6
3/6 .. 24/	—	1/ TUBES .. 7/6
6/6 .. 45/	—	2/6 .. 18/

Matchless for the Teeth, Gums, and Breath.

GUARANTEED NON-INJURIOUS TO THE ENAMEL.

Show Cards, &c., on application.

THE ALEXANDRA DENTIFRICE DEPOT

143 Cannon Street, London, E.C.

CAUTION!

KEATING'S INSECT POWDER.

12 Bride Lane, London, E.C.

February 5, 1891.

WHEREAS I have reason to believe that certain Chemists have sold to Customers Penny Packets of what they represent to be Keating's Insect Powder. I **HEREBY GIVE NOTICE** that no genuine packet of Keating's Insect Powder is sold by me for less than Sixpence per Packet retail, and that I shall institute Legal Proceedings against persons found to be improperly selling any but Keating's Insect Powder to customers asking for it, which action renders them liable to very heavy penalties.

THOMAS KEATING.

A WARNING!

In the High Court of Justice—Chancery Division. Mr. JUSTICE NORTH—October 26, 1886.

KEATING v. POLL.

IT WAS ORDERED—

That the Defendant be perpetually restrained from stating or causing to be stated that Keating's Persian Insect Destroying Powder contains any substance poisonous to animals or human beings, or from making any statement to the effect that such Powder is dangerous to animals or human beings.

IT WAS FURTHER ORDERED—

That the Defendant, William Sheppard Poll, do pay to the Plaintiffs their costs of this action.

“Keating's Powder” is a special preparation, different from, and not to be compared with, any so-called Insect Powders which give so much dissatisfaction to Customers.

NOTICE.—Chemists who make statements to customers defamatory of Keating's Insect Powder will be summarily proceeded against.

"AGREED AT LAST."

The Statuette, as drawing below, is effectively produced in Terra Cotta, the likenesses of the two great political leaders being most striking, and their expression clearly shows they have at last found a topic on which no difference of opinion can exist, viz., that **"HOCKIN'S ACME CONES ARE THE BEST."**

We present this striking group, which is 18 inches high, with all first orders for £2 10s. worth of our

"ACME" BRAND PURE MENTHOL CONES

(not more than £1 in value to be taken in 1d., 2d., and 3d. Cones.)

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NEW PATTERNS. SPECIALLY SALEABLE.

- No.
*217F. Glass Show Bottle, with foot, as fig. 88, 1/8 per doz.
*217A. Glass Show Bottle, with foot, as fig. 161, 3/- per doz.
*214A. Glass Show Bottle, with foot, as fig. 161. This has a very large Cone. 4/3 per doz.
220. Cone Shape, as fig. 203, each in slide box, 1 doz. in Outer, extra size, 4/3 per doz.
*221. Large Flat Draughtsman, very large Cone (120 grains), 4/9 per doz.
222. Elegantly cut Show Glass Bottles, as fig. 222, 3 centilugs, 9/- per doz.
224. Enamelled Tin Box, Printing on box, 30 gr. Cone, 1/6 per doz.

* These are packed in 1-doz. Hanging Glass-fronted Boxes.



1d. CONES.

- No.
219. Willow Boxes, bottle, barrel, or acorn shape, 3 doz. on card, one sort or assorted, 6/6 gross.

2d. CONES.

- 202s. Polished Willow Boxes, bullet shape, 2 doz. on card, 12/- gross.
201s. Polished Willow Boxes, barrel shape, 2 doz. on card, 12/- gross.
206s. Polished Willow Boxes, cone shape, 2 doz. on card, 12/- gross.

3d. CONES.

- 207s. Polished Willow Boxes, Draughtsman shape, 18/- gross.

4d. CONES.

- 88g. Polished Soft Wood, pedestal shape box, 80 grain cones, 1 doz. on card, 2/9 doz.

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We only quote the most saleable patterns here. Detail of all shapes on application

For Buyers who find 50/- worth too much, we shall be glad to send with an order for 25/- an **OPAL GAS GLOBE**, lettered as an Advertisement for Menthol, which makes a most striking and attractive addition to a Pharmacy.

HOCKIN, WILSON & CO.

13 to 16 NEW INN YARD, 186a TOTTENHAM COURT ROAD, LONDON, W.

CATALOGUE OF SUNDRIES AND SPECIALITIES FORWARDED ON RECEIPT OF BUSINESS CARD.

FEEDING BOTTLES.



THE "BEATRICE."
Full View.

THE "BEATRICE"

White Glass Bottle, *Registered* wedge-shape, with straight neck and screw glass stopper, best black fittings, each in box, retailing at 1s. Per dozen, **7/6.**

The bottle may be laid on *either* side without leaking, and the box is specially adapted for standing the feeder in while filling. An elegant and much-admired feeder.



THE "BEATRICE."
Side View.

THE "STANDARD."

644.—Green Flint Bottles, with box-wood top corks, white fittings, per gross ... **£1 3 0**

645.—Ditto, black fittings, per gross ... **£1 6 0**

649.—Green Flint Bottles, with glass screw stoppers, black fittings, per gross ... **£1 16 0**



651.—White Flint Bottles, with glass screw stoppers, black fittings, per gross ... **£2 2 0**

653.—White Flint Bottles, with glass screw stoppers, seamless teat, best black tubing, glass valve tube, with tube and bottle brushes, each in handsome labelled cardboard box, per dozen ... **£0 6 0**

We would especially invite the attention of the Trade to the fact that WE HAVE NOT ADVANCED the prices of our popular "Standard" Feeders, and are still able to receive and execute orders as above.

ALL THE ABOVE PRICES SUBJECT TO OUR USUAL DISCOUNT.

Customers' Names and Addresses **FREE OF CHARGE** for orders of Two Gross at one time.

THOMPSON, WALTERS, HOLE & CO., LIM.
CURTAIN ROAD, LONDON, E.C.

EAU DE COLOGNE

OF THE MOST ANCIENT DISTILLER,

JOHANN MARIA FARINA,
Opposite the Julichs Place, COLOGNE,
ESTABLISHED A.D. 1709.

PRIZE MEDALS:—LONDON, 1851 AND 1862; OPORTO, 1865; PARIS, 1867; VIENNA, 1873.

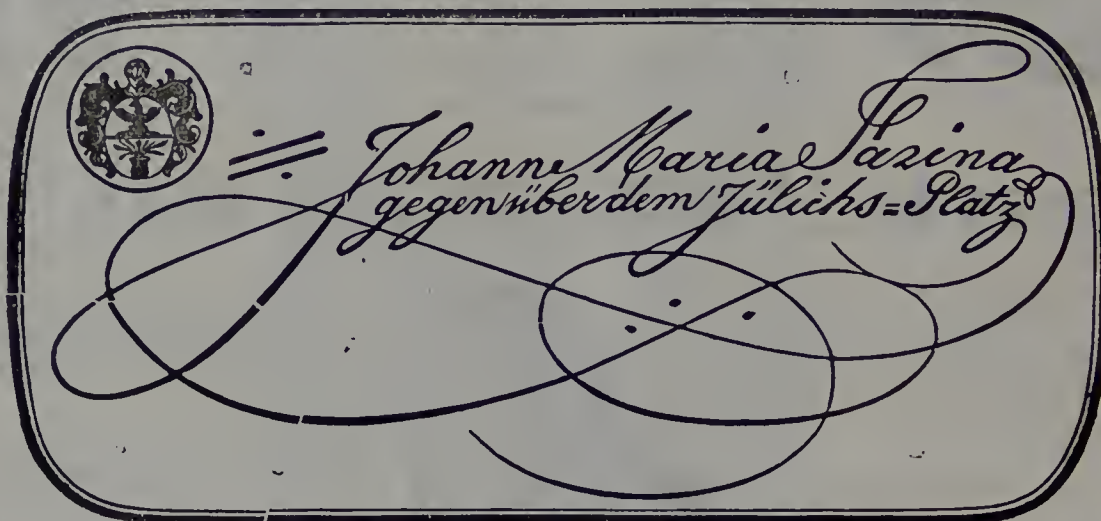
By appointment, Sole Purveyor to Her Most Gracious Majesty Victoria, Queen of Great Britain & Ireland; Their Royal Highnesses the Prince and Princess of Wales; Albert II., King of Saxony;



Their Majesties, William II., German Emperor and King of Prussia; Alexander II., Emperor of Russia; Francis Joseph, Emperor of Austria; Lewis, King of Portugal.

In consequence of increasing inquiries from the Colonies for my Eau de Cologne, the only genuine, I beg to submit my Price Current.

At the same time I beg to call special attention to the following facsimile of my Trade Mark for the protection of which I have instituted thirteen suits in the High Court of Chancery, all of which have been decided in my favour.



All similar Labels being more or less imitations of the same, I shall proceed as before against all person selling or exposing for sale any such imitations.

I only prepare one quality of Eau de Cologne. This quality never varies in the slightest degree, and there has not been the smallest change in the manufacture since the year 1709, when it was invented by my ancestor.

Orders equal to at least 12 dozen short bottles will be promptly executed at 13s. 6d. per dozen, against my bill drawn at three months from the date of invoice, delivered free on board the export ship, at Rotterdam, Antwerp, Hamburg, or Bremen, no charge being made for the case and packing, but insurance charged extra. 7½ per cent. discount is allowed for orders equal to at least 100 dozen, but on no smaller quantities.

I may add that, as I do not draw on the Colonies, all Orders must be accompanied by a credit on some London House, or permission to draw on same at three months.

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No. 1. Long Green Flasks	—	—	—	—	—	—	12 bottles	} to one dozen.
" 2. Short White Bottles	—	—	—	—	—	—	12 "	
" 3. Double ditto	—	—	—	—	—	—	6 "	
" 4. Wickered Bottles (small)	—	—	—	—	—	—	8 "	
" 5. ditto (medium)	—	—	—	—	—	—	4 "	
" 6. ditto (large)	—	—	—	—	—	—	2 "	

JOHANN MARIA FARINA

COLOGNE: January, 1891.

OPPOSITE THE JULICH'S PLACE.



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WILLIAM E. GEDDES,

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PEPTONISED MILK

IS SWEET AND PALATABLE

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FAIRCHILD.

ITS PREPARATION
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IT WILL DIGEST ALL KINDS OF FOOD: 5 grains, with a little soda, will sufficiently peptonise a pint of milk in a few minutes; 30 grains, with a little soda, will peptonise 4 ozs. of beef, producing a concentrated, nutritious, and delicious beef tea.

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While the Peptonising Powders are the most *elegant* and *convenient* form for peptonising milk, they are somewhat more expensive than the simple Zymin; where cheapness is of first importance the latter may therefore be used.

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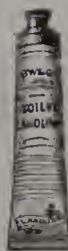
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Perfectly miscible with water and all medicaments. Recommended by the first physicians of all countries. (*Pamphlet sent on request.*)

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See Recommendatory Notice of Medical Press and Opinions of the leading Dermatologists.

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Detergens, acting for four hours, arrested future growth."

Of all Druggists, Wholesale and Retail, throughout Great Britain, Ireland, and Colonies.

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P. McLEOD, Colonel R.A., Inspector-General of Ordnance, Ordnance Office Madras, writes Sept. 10, 1887:—"I can certify that '*Liquor Carbonis Detergens*, has cured me of a Psoriasis of 21 years, incurred in Burmah, after every effort of such an able skin doctor as Sir Erasmus Wilson had failed."

From the *Medical Times and Gazette* Jan. 19, 1867:—"We have more than once called attention to the value of his remedy in chronic eczema."

From the *British Medical Journal*, Sept. 22

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Published every Saturday.

Subscription 10s. per year, payable in advance; dating from the commencement of any month.

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For Australasian subscribers the subsidiary journal, THE CHEMIST AND DRUGGIST OF AUSTRALASIA, is included.

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PUBLISHER'S NOTICE.

WHOLESALE HOUSES are requested to bear in mind that the Summer Issue of THE CHEMIST AND DRUGGIST will be published on July 25. On that occasion, and not again this year, we shall be prepared to stitch circulars with the journal. This favourite and effective method of distributing a circular to the trade must be arranged in advance, and firms thinking of taking advantage of the opportunity can get full particulars by communicating with us. Makers of specialities would find this a valuable opportunity to make the trade at home and abroad acquainted with their trade-marks, &c., by reproducing on pages, size of this journal, facsimiles of their labels, &c.

SUMMARY.

MR. R. J. MOSS writes an instructive description of the last analytical competition in the "Corner for Students."

WE give a brief account of the first meeting in celebration of the centenary of Faraday's birth. The Prince of Wales presided at the meeting.

THE ANNUAL MEETING of the North British Branch of the Pharmaceutical Society was held on Wednesday. There was a poor attendance. The chairman's address was read in his absence, and a new executive was elected.

It is officially announced from Milan that the International Pharmaceutical Congress will not be held there. Chestnut for the Americans.

AN Australian judgment, reported in our legal section, lays down the dictum that a secret in a medicinal or other non-patented process cannot be the subject of an action as if it were property.

THE GLASGOW SHERIFF is not satisfied that .0055 per cent. of lead in tartaric acid is injurious to public health, and he dismissed on Friday last an action against the grocer who had sold such acid.

THE prospects of the Pharmaceutical Conference meeting in Cardiff appear to be bright, if we may judge from the way in which the chemists there are exerting themselves. They held a meeting last week, at which Emeritus Professor Redwood presided. The committee think of spending 14s. on each one who attends the meeting. Edinburgh chemists, it will also be noticed, are beginning to think about the meeting there next year.

WE report two cases this week in which the proprietors of Beecham's pills were the plaintiffs, and retailers of penny-worths the defendants. One case was tried in the English High Court, and the defendant (a chemist) submitted to a perpetual injunction, having discovered at the last moment that his assistants, the chief witnesses, were unreliable. The other case was tried in the Court of Session, Edinburgh. Here a Glasgow doctor was the defendant, and the case was well fought, as the length of our report shows. The judge suggested to counsel that they should arrange privately, but this could not be done, and judgment was reserved.

IMPORTANT.

JAHNCKE'S PATENT BOXES.—In THE CHEMIST AND DRUGGIST of April 18 last we replied to a correspondent in reference to a patent for Jahncke's metallic boxes, and in that answer we fell into an error which, in justice to Mr. Jahncke, as well as chemists and druggists generally, we desire to correct. We stated that "Jahncke's patent for making small tin boxes is void." That was an incorrect statement. Mr. Jahncke's patents (which have been well known in the trade for so many years past) are in full force, both as regards the patent round box, in which the drawn-up lid and body are made of the same diameter, the inside round strip serving for the lid to pass over and to fit flush against the body; and also as regards the patent oblong box with the rounded corners. The mistake occurred through our making an incorrect reference at the Patent Office. The patent to which we referred in our reply to "Alpha" on April 18 last was also one of Mr. Jahncke's (he has been a prolific inventor), but was dropped by him. It related to a certain kind of money-box, and was of no interest to the chemist and druggist trade. In our issue of May 9 the mistake we had made was referred to on page 670, but as the insertion of the statement is calculated to cause Mr. Jahncke serious damage unless a full explanation and retraction be made, we have much pleasure in inserting this explanation, and beg to express to Mr. Jahncke our regret for the inadvertence which led to the insertion of the statement in question. We trust that our readers have not been in any way misled thereby, and that it has not been injurious to the interests of Mr. Jahncke, whose patent metallic boxes have been of such great benefit to the trade.

THE ALBERT MEDAL has this year been awarded by the Society of Arts to Sir Frederick Abel, for his services to chemical and explosive science.



CONDUCTED BY RICHARD J. MOSS, F.C.S., F.I.O.

QUALITATIVE ANALYSIS.

A MIXTURE of three salts will again form the subject of the exercise in qualitative analysis. It is to be submitted to a thorough systematic examination; its constituents are to be detected, and all other substances proved absent.

Students' applications for portions of the mixture will be received up to Wednesday, June 24, and the samples will be forwarded immediately.

Students' reports will be received up to Saturday morning, July 4. Each report should contain a concise account of the work done, and should include a list of the constituents detected, distinguishing any which may be regarded as accidental impurities.

REPORTS.

The subject of the last exercise was a mixture of equal parts of barium nitrate, calcium oxalate and magnesium carbonate. Its calculated composition was as follows:—

Ba ..	..	..	..	..	..	17.50
Ca ..	..	..	..	..	..	10.42
Mg ..	..	..	..	..	..	9.52
CO ₃ ..	..	..	..	..	..	23.81
NO ₃ ..	..	..	..	..	..	15.84
C ₂ O ₄ ..	..	..	..	..	..	22.91
						100.00

Thirty students sent in reports, and of these ten arrived at correct results; amongst the less successful analyses there are the following failures to record: the oxalic radicle, twelve; the nitric radicle, ten; calcium, nine; barium, two; magnesium, one.

There is very little excuse for the failures in the detection of the nitric radicle. When the powder was heated in a tube closed at one end there was slight decrepitation and reddish-brown fumes made their appearance; not only were the fumes distinctly visible, but the peculiar smell they possess was unmistakable. The experiment that gave these results is one that should never be neglected in the preliminary examination of a solid: there is probably no single experiment that gives so much information about a substance as trying the effect of heat upon it. This was the first indication of a nitrate. At a later stage in the analysis, when the acid radicles were being sought for, further evidence of the presence of a nitrate was readily obtained. As all nitrates are soluble in water there was no necessity for preparing an acid solution in order to test for nitric acid: the aqueous extract of the powder must contain any nitrate present. On adding ferrous sulphate to this extract a bulky white precipitate of barium sulphate was formed, and it might have been supposed that this would prevent any brown ring formed on adding sulphuric acid from being observed; but such was not the case—the brown ring was easily seen notwithstanding the suspended white precipitate. The best plan, however, was to add more than enough ferrous sulphate to precipitate all the barium, then filter and add concentrated sulphuric acid to the filtrate, when the brown ring at once made its appearance.

The first indication of an oxalate was in the ignition of the

powder in a glass tube, when carbonic oxide was evolved. This might readily have escaped notice, and was not likely to be observed unless actually looked for. A good many of our correspondents were successful in detecting it. When, in the regular course of the analysis, ammonia was added to the acid solution of the powder a white granular precipitate was formed, insoluble in an excess of the reagent. It required very little experience of analytical work to see that this precipitate was quite unlike aluminium hydrate—it bore more resemblance to a phosphate; but on applying the molybdenum test no trace of a phosphate could be found. When a portion of the solution was evaporated to dryness, ignited and redissolved, it no longer gave a precipitate with ammonia, thus showing that the cause of the former precipitate was an organic acid removable by ignition. In the systematic examination for the acids it was necessary to obtain a solution free from the alkali earth metals; this was readily done by boiling the powder with sodium carbonate. The resulting solution, after filtration and acidulation with acetic acid, gave a granular precipitate with calcium chloride, insoluble in acetic acid, but soluble in the mineral acids. A portion of the precipitate dried and ignited effervesced with acids—there could be no doubt that it was an oxalate.

PRIZES.

The First Prize for the best analysis has been awarded to H. MARSHALL, 27 Regent Place, Edinburgh.

The Second Prize has been awarded to WALTER PORTER, 2 King Street, Whitehaven.

Marks Awarded for Analyses:

H. Marshall (1st prize) ..	95	J. H. H. ..	80
W. Porter (2nd prize) ..	93	Heanley ..	80
H. Bowden ..	92	Azoimide ..	80
A. Blowpipe ..	91	J. Bircham ..	78
Col. Chieum ..	91	C. E. Ashby ..	70
W. Hood ..	90	Flamma ..	70
Juvenis ..	90	J. Hamerton ..	70
Moyhitt ..	88	H. G. Fabb ..	70
Dum Spiro Spero ..	88	Opopanax ..	68
Oxford ..	87	Styrax ..	65
Ulexine ..	85	Zymine ..	65
Longstons ..	85	F. G. R. ..	55
A. D. C. ..	85	W. L. C. ..	55
A. Thorpe ..	83	Cogito ..	50
Verdant Green ..	82	Excursus ..	45

TO CORRESPONDENTS.

Prizes.—The students to whom prizes are awarded are requested to write at once to the Publisher, naming the book they select, and stating how they wish it forwarded.

Any scientific book that is published at a price not greatly exceeding half a guinea may be taken as a first prize.

Any scientific book which is sold for about five shillings may be taken as second prize.

Note.—All communications should include the names and addresses of the writers.

JUVENIS.—The fact that there was a carbonate present after the powder was ignited did not count for much as evidence of the presence of an oxalate, because the powder contained a carbonate before it was ignited. The really important point in this connection was that carbonic oxide was evolved when the powder was ignited.

ULEXINE.—The precipitate that you observed when ammonia was added to the acid solution of the powder was the first indication of an oxalate. This reaction ought not to have been passed over without further investigation. A mixture having the composition you assigned to the powder would not behave in this way.

LONGSTON.—Your examination for the acids was too superficial; all the important radicles should be proved either present or absent.

A. D. C.—Your statement that "acids were tested for with negative results" does not convey much information as to what you actually did. See remarks to "Longstons."

A. THORPE.—The carbonic oxide that you noticed was evolved when the powder was heated was more likely to escape notice than the brown nitrous fumes which you failed to observe. In testing for a nitrate with

June 20 1891.]

indigo solution, the latter should be used very sparingly—just enough to give a distinct blue colour. If the colour of the liquid is intensely blue you may fail to observe any change of colour, although a certain amount of bleaching takes place.

VERDANT GREEN.—You omitted to examine the solution in which barium was detected for calcium; the barium should have been separated as sulphate, and the filtrate tested with ammonium oxalate.

J. H. H.—The yellowish-white precipitate that you obtained with ferric chloride was ferric oxalate.

HEANLEY.—You altogether omitted the preliminary examination in the dry way; it was most important to observe the effect of heat on the powder. You could scarcely have failed to notice the brown nitrous fumes that were evolved.

AZOIMIDE.—The ferrous-sulphate test gave very distinct evidence of the presence of nitric acid, even without taking the trouble to remove barium. This test requires careful manipulation, and it is useless to attempt to apply it to unknown substances until you have had sufficient practice with the test to ensure that you can detect small quantities of nitrates with certainty.

J. BIRCHAM.—You omitted to look for magnesium. Your analysis was not conducted on a sufficiently definite system. One portion of the original solution should suffice for examination with the group reagents.

C. E. ASHEY.—There was a great deal more to be observed when the powder was heated than the evolution of an acid gas: the nitrous fumes ought not to have escaped notice.

FLANNA.—The precipitate thrown down by ammonia from the acid solution consisted of calcium oxalate, and bore no resemblance to aluminium hydrate. When you fused this precipitate with sodium carbonate and nitrate, the oxalate was decomposed, leaving the calcium as carbonate, and any precipitate you obtained on subsequently adding ammonium chloride was due to aluminium existing as an impurity in your reagents. You must have noticed that the latter precipitate was much less in quantity than the original precipitate, and wholly different in character.

J. HAMERTON.—Your evidence of the presence of a phosphate was for the most part indirect. If it had been present more conclusive proof would have been obtainable.

OPOPANAX.—Strontium gives such a strong and characteristic flame-coloration that there ought to be no mistake in identifying it. You do not seem to have resorted to this important test. More exhaustive work is required if you wish to arrive at accurate results.

STYRAX.—It is not surprising that you failed to precipitate the barium as chromate from a hydrochloric-acid solution, as barium chromate is soluble in hydrochloric acid; but it is remarkable that calcium sulphate gave no precipitate. You must have mistaken your reagents, or in some other way failed to carry out the operations you describe.

ZYMINE.—A little consideration might have shown you that if the oxalic radicle was present, along with the metals you detected, an oxalate must have been precipitated when you neutralised the acid in which the powder was dissolved. There was no necessity, therefore, to resort to the theory that cerium was present in order to account for the precipitate you got with ammonia.

F. G. R.—Your report was too brief and too imperfect to admit of useful criticism. The smell of sulphurous anhydride is very characteristic, and it is not easy to confound it with the smell of any other gas.

W. L. C.—Several of the experiments you describe gave results altogether different from what you observed. The nitric radicle was detected with ease by each of the reactions that gave you negative results. You want practice.

EXCURSUS.—Sulphuric acid was a bad solvent to employ for the powder: hydrochloric acid was the proper one to use. Your work was too superficial: a much more careful analysis is required.

Metropolitan Reports.

CHEMISTS' ASSISTANTS' ASSOCIATION.—At a council meeting of the Chemists' Assistants' Association held at 103 Great Russell Street, on June 9, the following officers were elected for the session 1891-1892:—President, Mr. W. Lloyd Williams, A.I.C.; Vice-Presidents, Messrs. Frank A. Rogers and J. C. Umney; Hon. Treasurer, Mr. C. J. Strother; Hon. Secretaries, Messrs. W. A. Morris and J. C. Stead.

THE DIRECTORS OF THE CITY SCHOOL OF CHEMISTRY AND PHARMACY (LIMITED), of 27 Chancery Lane, propose to extend their operations by undertaking commercial analyses, preparing chemical and pharmaceutical preparations in marketable quantities, and opening a shop for wholesale and retail business in Chancery Lane. For these purposes they invite additional capital, and by advertisement this week offer 2,000 1/2 shares.

THE MANUFACTURE OF SULPHATE OF AMMONIA.—The Metropolitan Asylums Board, at its meeting on June 13, accepted the tender of Messrs. Dempster & Co., of Manchester, for the supply and fixing, at the Board's gasworks, of the necessary plant for the manufacture of sulphate of ammonia at the sum of 150%. The following were the unaccepted tenders:—

	£	s.	d.
Messrs. Goddard, Massey, & Warner, Nottingham	160	0	0
Messrs. Willey & Co., Exeter	179	0	0
Messrs. C. & W. Walker, Donnington	180	0	0
Messrs. Ashmore, Benson, Pease & Co. (Limited), Stockton-on-Tees	270	0	0
Messrs. J. Abbot & Co. (Limited), Gateshead-on- Tyne	285	0	0

THE COUNTY COUNCIL'S CHEMIST.—On Tuesday, at the usual weekly meeting of the members of the London County Council, held at the offices, Spring Gardens, Charing Cross, Sir John Lubbock in the chair, the General Purposes Committee brought up a report with regard to the chemist. The Committee stated that the chemist had reported that in consequence of the greatly increased quantity of analytical work, especially in connection with the examination of food and drugs, he had urgent need of an additional assistant. He stated that during last year 1,200 samples of various articles were examined, and that there were at the present time over 40 samples of food and other articles under or awaiting examination, in addition to which the standard solutions required for use at the gas-testing stations had to be prepared, and samples of petroleum tested. They were satisfied that there was need of the extra assistance asked for, and they accordingly recommended "That a second-class assistant be appointed in the chemist's department, at the commencing salary of 150% a year, and that advertisements be issued inviting applications for the post." This was agreed to.

DEBT OR FRAUD?—At the North London Police Court, on June 12, before Mr. Kennedy, Frederick Duncan, of Algernon Road, Lewisham, was summoned by Arthur Wesley Darley, of the Monarch Disinfectant Works, Cottrell Road and Manor Place, Hackney, "for unlawfully obtaining on April 9, and on divers other dates since, by means of certain false and fraudulent pretences, of and from the said Arthur Wesley Darley, the several sums of 5s., 2s. 6d., and 3s. 8d., respectively, with intent to defraud." Mr. C. V. Young appeared to prosecute, and Mr. Gleadow defended. Mr. Young said his case was that the defendant, who had been in the employ of the complainant as a traveller for more than twelve months, had obtained the sums named in the summons as commissions on goods that had not been ordered. The defendant was paid by commission, but got 50 per cent., and could not complain. The complainant was called, and bore out this statement; but acknowledged in cross-examination that he had written familiar letters to the defendant, telling him, "old man," that it was no use turning up at the office unless he was prepared to cover the whole of the orders sent in. This Mr. Gleadow submitted showed that the defendant would not have been summoned at all had he been more prompt in balancing up. Mr. Young: But there are gentlemen in court who will say they never gave the orders which the defendant sent in to the complainant, and received his commission upon—Mr. J. Cole, jobmaster, of Lewisham; Mr. Wiseman, of Topping's Wharf, Tooley Street; and W. J. Fricker, of High Street, Deptford. Mr. Fricker sent back the two gallons of dark acid, at 3s., which had been sent him; and the same with regard to a similar order booked to Mr. Wiseman. In reply to further questions the complainant denied that he had taken these proceedings because the defendant had set up in business on his own account. He bore the defendant no malice. He told him some time ago that if this thing happened again he would appeal to the court. Mr. Kennedy did not consider there was any fraud in the matter, and dismissed the summons.

CLERKENWELL VESTRY AND THE DISINFECTANT CONTRACT.—At the last meeting of the Clerkenwell Vestry, Mr. Churchwarden Rohson presiding, the clerk reported that the medical officer, having caused some of the carbolic-acid powder to be analysed, had sent the certificate showing that the powder was not up to sample or contract. The clerk

added that it was provided in the contract that should any article be analysed, and found not up to contract, the cost of the analysis should be defrayed by the contractor. The bulk of the powder had already been sent back, and proper stuff requested in its stead. Mr. Gibson: I move that the costs be added to the penalties. Mr. Atkinson: And what are we going to do with regard to the contractor? We put an end to a contract once before. Mr. Putterill (Chairman of the Sanitary Committee): This is one of the cheap contractors. Dr. Griffiths (Medical Officer of Health): These people's carbolic acid has been very good, and I should be loth to part with them on that account. But this other stuff is bad. The surveyor said he had written to the contractors telling them that the carbolic-acid powder supplied was not up to contract. Would they send 5 cwt. in exchange as soon as possible? He also enclosed another order for acids. Mr. Kelly: Who are the contractors? The Clerk: Messrs. Adams, Webster & Co. Mr. Putterill: This is the very article which we use most of, and which we do want pure. It has to go into the dustbins of the parish, it is hoped with beneficial and not nugatory results. Mr. Kelly said he would move, as an amendment, that the clerk write to the contractors telling them that as they had failed in complying with the contract, the contract was determined. Mr. Putterill: Give them a chance of replying to the letter sent by the surveyor yesterday. Mr. Kelly: But the doctor says it is simply rubbish. Mr. Atkinson: Mind the writ. (Laughter.) Mr. Griffiths: It is worse than useless. Mr. Kelly: Another writ for the doctor. (Laughter.) I shall move that the contractors be told that if this happens again we will determine the contract. Mr. Atkinson: And I will second it. Any form of adulteration is a disgraceful thing, and that which deals with the health of the poor is worst of all. We have the certificate of our analyst, and are quite confident in his accuracy. They make tenders far too low. With all the sickness which was known to be about, unless they took determined steps they would never be treated properly. Mr. Daldoph: What is the percentage of carbolic acid which is required? The Clerk: 10 or 15 per cent. Mr. Daldoph: And what is there in this? The Clerk: Much less than that. Mr. Crowle-Smith quite agreed with the speakers, but thought the board might wait for a reply to the letter of the surveyor. Dr. Griffiths: We don't want the reply. We want right stuff. Mr. Weston: How long has the vestry known of the unsatisfactory condition of these goods? The Chairman: I have known it about five minutes. (Laughter.) The Clerk: Three or four days. Dr. Richards: I think this discussion has gone quite far enough. Our surveyor has sent the old stuff back, and has ordered a new supply. I think we might wait for that, and find out if that is wrong. Then we can determine the contract. If we determine the contract now, we should have to pay a good deal more money in getting a new supply. Mr. Garrod thought steps should be taken to ascertain the quality of goods directly they are sent in. The clerk advised the board not to determine the contract, because there was a clause in the agreement which gave the board the opportunity of sending bad stuff back, buying good stuff elsewhere, and charging the contractor the difference in the price. Mr. Kelly thereupon withdrew his motion, and altered it to the following:—"That the vestry will see that the terms of the contract are enforced." This was adopted.

English News.

THE business lately carried on by Mr. R. W. Watson at Broomhill, Sheffield, has been bought by Mr. Eardley, of Glossop Road.

BOOT'S PURE DRUG COMPANY, Sheffield, have opened two more shops lately, one in the Uppertorpe district and one on "the Moor."

A WINDOW SMASHED.—Messrs. H. Barritt & Son, chemists, of Colchester, had their plate-glass window smashed last week by the shaft of a hansom cab. The horse in the cab was taken with megrims and dragged the cab in an eccentric course. It was revived by the application of a bucketful of water to its head.

CHEMICAL SOCIETY.—An extraordinary general meeting of this society will be held at Burlington House on Thursday June 25, at 8 P.M. This meeting is called for the purpose of considering certain alterations in the by-laws which are proposed by dissatisfied members.

MISTAKING THE BOTTLES.—Inquests have been held within the last week by Coroner Baxter, at the London Hospital, on John Sykes, 43, a fish-porter, who drank from a bottle containing carbolic acid, believing it to be beer; and by Coroner Carttar, at Woolwich, on Richard Boswell, an Arsenal pensioner, who in a similar way mistook chloride of zinc for whisky.

A CHEMIST IN THE DIVORCE COURT.—Mr. Herbert Potter, a chemist, formerly of Carshalton and Sutton, appeared as respondent in the Divorce Court on Tuesday. His relations with "Jane," a servant, and alleged cruelty and desertion, were the subjects of the evidence. Mr. Justice Jeune thought the evidence insufficient as to the cruelty and desertion, and the case was adjourned in order that additional evidence might be obtained.

THE WEIGHTS AND MEASURES ACT.—At the Brentford Police Court, last week, Frederick G. Gudyen, chemist, 228 High Road, Chiswick, was summoned for having had in his possession for use for trade purposes a weighing instrument which was unstamped. In reply to the charge, defendant said that it was his intention to have sent this machine to be stamped when another, which had been forwarded for stamping, had been returned. Defendant was fined 10s. and costs.

CHLOROFORM POISONING.—Mrs. Hadfield, wife of Mr. Henry May Hadfield, chemist, Parade House, Dartmouth, on Saturday committed suicide by taking a quantity of chloroform. Shortly after four o'clock Mr. Hadfield heard peculiar sounds from a closet near the shop, and on going up found his wife dying. The shopboy saw her a few minutes previously drink something from a bottle. Medical assistance was obtained, but Mrs. Hadfield expired two hours later.

PRESENTATION.—On Tuesday a small party of Brighton chemists met in one of the arches on the sea-front to express their thanks to the owner of the arch, Mr. Edward Histed, pharmaceutical chemist, for lending it as he had done for meetings in connection with the local association and gatherings of a social character. The gentlemen concerned had bought for Mr. Histed a handsome lounge chair, appropriately upholstered, and suited for the requirements of the arch. This was presented on behalf of the subscribers by Mr. Shepherd, and he and others made suitable speeches.

FIRE.—About 10 P.M. on June 12, the shop of the Southern Drug Stores, at Southampton, was found to be full of smoke, and it was found that some lumber kept in a store underneath a passage at the end of the shop was on fire. A fire hose is kept in the passage, and when the alarm was given, Mr. Batty, the manager, who lives on the premises, set the hose going, and at once had information conveyed to the Fire Brigade. The fire was found not a minute too soon, as the flames had already fired the beams, and were creeping up the passage on the shop floor. The beams and other woodwork were as dry as tinder, and but for the promptness of the brigade there would have been a serious conflagration. As it was the danger was all over in half an hour.

THE COMING CONFERENCE.—A meeting of the local committee of the British Pharmaceutical Society was held last week at the Angel Hotel, Cardiff, Professor T. Redwood, Ph.D., presiding. Delegates were present from Newport and Swansea, as well as Cardiff. The principal business was the discussion of arrangements for the conference which will be held in Cardiff, commencing on Monday, August 17, and at which about 200 members are expected to attend. The meeting will be held in the University College. Arrangements are being made for excursions to Llandaff, Caerphilly, Margam Abbey, and other places of interest. It is estimated that a sum of 140*l.* will be required to cover the expenses; and already 80*l.* have been subscribed. The following gentlemen were appointed as a committee to perfect the arrangements:—Messrs. Munday, Yorath, Mumford, Prust, Sanders, Hicks, Anthony, and Alfred Coleman (hon. sec.).

METHYLATION AND "GROGGING."—In the House of Commons, on June 15, Mr. Bigwood asked the Secretary to the Treasury whether he was aware that the Excise authorities declared that they were unable, as the law now stands, to prevent rectifiers, who methylate, from "grogging" bonded casks which had contained spirit for methylation; and, if so, whether any alteration in the law was proposed to enable the authorities to deal with the practice in a satisfactory manner, and thus stop this serious leakage in revenue. Mr. Jackson: The facts as to "grogging" are as stated by my hon. friend. The question of "grogging" generally is under the consideration of the Board of Inland Revenue.

THE YACHT TRIP.—On Thursday of last week, a goodly number of Brighton chemists met at the Brighton Station, at 10.15 A.M., in response to Mr. Alderman Cox's invitation to join him on a trip in his yacht *Sissie*. Among the chemists in the party were Messrs. Caton, Costerton, Gwatkin, Histed, Jago, M. Leigh, Levett, Munton, Padwick, K. Pears & Son, W. D. Savage, W. W. Savage, Smithson, Shepherd, Stephens, Stableforth, and Wilkinson. The medical profession was represented by Drs. Ewart and Goode, and the Corporation by the Town Clerk, Mr. F. Tillstone. The party journeyed to Ford, and there met Alderman Cox and the *Sissie*. The first part of the voyage was down the river to Littlehampton, where other friends embarked. In Arundel Park the worthy host had, as usual, made ample provision for luncheon. A few cordial toasts were drunk, and some of the party came back to Brighton in the *Sissie* by sea, while others returned by rail, all having spent a most enjoyable day.

IS IT A ROMANCE?—An extraordinary case came before the Worthing magistrates on Monday, two young ladies—Edith Spiller (16) and Rose Brame (17)—being charged with conspiring to kill the former. It seems that they were driving on a brake to Chanctonbury and back, and in the course of the drive three other lady passengers heard the conversation of accused from which they gathered that poison was to be bought when they arrived at Worthing, which Miss Spiller was to take. The three passengers decided to watch accused, and they did. Misses Spiller and Brame went into the shop of Mr. Walter Aston, chemist, Montague Street, and asked for 2d. worth of laudanum for toothache. Mr. Aston supplied, as there was nothing suspicious about the girls—in fact, they were quite jocular. After this the amateur detectives came in in a state of great alarm and told Mr. Aston what they had heard. He thought it was all a joke at first, but told the police. The accused next went to Mr. Cortis's in Smith Street, and the assistant there (Mr. Herbert Skinner) supplied them with 2d. worth of laudanum for toothache. All this came out in court on Monday, when it was stated on behalf of the defendants that the conversation on the brake was a girlish freak and meant nothing. However, they were committed for trial, bail for Miss Spiller 500*l.*, and for Miss Brame 100*l.*

ETHER AS A POISON IN IRELAND.—In the House of Commons, on June 12, Mr. Lea asked the Chief Secretary to the Lord Lieutenant of Ireland whether his attention had been directed to a prosecution for illegally selling ether, heard at the Maghera Petty Sessions on May 31, when the defendant pleaded ignorance of the law as his excuse; whether he would have a copy of the order scheduling ether as a poison issued as a handbill, and left at the shops throughout the districts where ether was sold as a beverage, as indicated in the evidence given before the Select Committee on British and Foreign Spirits; and if he would have a copy of the order exposed in front of each police barrack in these districts. Mr. Balfour replied that his attention had been drawn to the newspaper report of the prosecution referred to by his hon. friend. With regard to the scheduling of ether as a poison, a caution was issued by the magistrates, and he believed that that, together with the decision mentioned, would have the desired effect. With regard to the publication of the notice suggested, he considered the idea a good one, and arrangements would be made for the posting of such a notice outside the police barracks in the districts concerned. Sir Wilfrid Lawson: Will any compensation be given to the persons who are now prevented from selling ether? (Laughter.) No answer was returned.

ACTION AGAINST SEQUAH AT TORQUAY.—At Torquay County Court, on Saturday, before Mr. Judge Edge, William Harvey sued the Sequah Company (Limited) for 1*l.* 14*s.* 6*d.*, damages to palms, flower-beds, squares of glass, &c., at the Winter Gardens, Torquay. Mr. Carter, for plaintiff, said last year an application was made by the defendant company for the Winter Gardens, and, after some correspondence between Messrs. Cox, house agents, an agreement was entered into for them to have the place for a month for 30*l.* The people were invited to the gardens to witness the cures by defendants' representative, without charge for admission, and on one occasion some 1,400 or 1,500 people got in, and there was a great uproar, considerable damage being done to the property in consequence of the misuse of the building and want of supervision. Before the damage was done the caretaker suggested to the company's representative that constables should be engaged to keep back the crowd, but he said he would send up his stablemen to do this. The men, however, arrived too late to prevent the damage. Mr. Eastley, for the defendant company, said he was labouring under a disadvantage, because the defendants' representative had been sent to India, but he pointed out that there was no condition in the agreement that they should be liable for damages. Reasonable care was taken by the agent to protect the property, and the damage was caused by the large number of people who came. There was negligence on the part of the plaintiff's agent in not providing for special damages. His Honour said the whole question was, did the defendants take such steps in using it as to protect the building from unreasonable use? They were bound to do this by law, and ought to have admitted only such a number of people as could reasonably be accommodated. He gave judgment for plaintiff for the amount claimed.

SELLING CHLORODYNE.—On Saturday, June 13, Mr. Roumieu, the West Surrey coroner, held an inquest at the Banstead Lunatic Asylum on the body of Fergus Scott, aged 45 years, a captain in the merchant service, who was found insensible on Banstead Downs on the evening of June 10, and who died on the morning of the following day from the effects of swallowing an ounce of chlorodyne. Mr. Robert Knowles, chemist, High Street, Sutton, stated that at half-past four on Wednesday afternoon the deceased came to his shop and asked for a bottle of chlorodyne. Witness gave him a small one, and he said that as he lived in the country, at Banstead, he would be glad of a larger size. As he explained that he had been in the habit of taking chlorodyne for diarrhoea, from which he was then suffering, witness sold him a 2-oz. bottle. The deceased then asked him what was the largest dose one might take with safety, and he replied that 30 drops was the maximum dose. Thereupon the deceased said he had been accustomed while in India to take as many as 50 drops. Witness then advised him to take 30 drops, and if the diarrhoea did not cease to repeat the dose in four hours. The deceased left the shop and returned almost immediately and purchased a glass measure. He was perfectly rational. The Coroner: With reference to selling this chlorodyne, is it scheduled at all? Witness: No; because it is a patent medicine. It is sold by grocers. The Coroner: It does not come within the category of scheduled poisons, does it? Witness: No; no patent medicines do. The Coroner: But it ought to. Witness: Yes, I think so, too. It contains morphia and other things that are scheduled. The Coroner: Is there not something in the Act about all preparations containing any poisons mentioned in the schedule? Witness: That has reference to opium and its preparations. Now, laudanum, which is tincture of opium, is sold by grocers and hucksters as "black drops" and "anodyne tincture," in order to evade the Act. A Juryman: Is this the largest-sized bottle? Witness: No; they make larger than that. If I had refused to serve the deceased he could have gone next door but one and got what he wanted at the grocer's. (To the Coroner.) He asked me what effect a larger dose than 30 drops would have, and I told him it might upset him very much. Some further evidence having been given, the jury found that the deceased came to his death by misadventure.

CRICKET.—The married and single members of the Midland Counties Chemists' Association met on Wednesday on the Langley ground, Birmingham, but the match was a

rather one-sided affair, four of the married combatants failing to appear, while only one single cricketer was absent. The married long-stop seems to have slept. The score was as follows:—

MARRIED.		SINGLE.	
J. Drew, c Fallows, b Cross	.. 14	F. Cross, run out	.. .. 0
C. S. Baynton, c Fallows, b Hunt	4	H. Fallows, b Drew	.. .. 2
W. R. Sellick, not out	.. 10	T. Ground, b Sellick	.. .. 50
H. Critchlow, b Cross	.. 0	F. H. Aloock, b Drew	.. .. 5
C. Thompson, c Cross, b Hunt	.. 1	H. Boucher, b Critchlow	.. .. 0
J. H. Prosser, b Hunt	.. 1	F. Hallam, b Critchlow	.. .. 1
Dyer, b Cross	.. .. 1	T. Hunt, b Critchlow	.. .. 3
Four absent		H. J. Auhrey, b Drew	.. .. 10
Extras	.. .. 7	A. Perks, b Sellick	.. .. 4
		Davis, not out	.. .. 5
		One absent	
		Extras	.. .. 31
Total	.. .. 33	Total	.. .. 111

The students of the South London School of Pharmacy met those of the Westminster College on Saturday last at Nunhead. Mr. Armstrong, of the former team, seems to have manifested a cricketly-demoniac force, and ensured victory for his side. The score was as under:—

WESTMINSTER COLLEGE.			
Clarke, b Armstrong	.. .. 6	b Fillingham	.. .. 3
Poole, b Armstrong	.. .. 1	b Fillingham	.. .. 5
Drackley, b Parkin	.. .. 2	c Armstrong, h Taylor	.. .. 13
Marks, b Armstrong	.. .. 7	run out	.. .. 0
Thomas, b Armstrong	.. .. 0	h Taylor	.. .. 6
Gallimore, h Armstrong	.. .. 4	not out	.. .. 0
Jones, h Armstrong	.. .. 9	h Parkin	.. .. 2
Butterfield, b Armstrong	.. .. 0	Extras	.. .. 1
Ashmore, b Armstrong	.. .. 0		
Royston, c Maclean, b Armstrong	.. .. 0		
Watson, c Armstrong, h Baugh	9		
Evans, not out	.. .. 0		
Extras	.. .. 7		
Total	.. .. 45	Total (for 6 wickets)	.. 30

SOUTH LONDON SCHOOL OF PHARMACY.			
Armstrong, h Marks	.. .. 63	Mundell, c Thomas, b Royston	17
Baugh, b Marks	.. .. 0	Maclean, c Watson, b Clarke	0
Green, h Drackley	.. .. 4	Roberts, h Royston	.. .. 5
Fillingham, b Drackley	.. .. 2	King, not out	.. .. 1
Parkin, b Marks	.. .. 7	Extras	.. .. 12
Taylor, lhw, h Marks	.. .. 23		
Hayward, c Drackley, b Marks	11	Total	.. .. 155
Olds, h Clarke	.. .. 10		

IRISH NEWS.

FIRE AT A DRUG-STORE.—Last week, at Belfast, a fire broke out in the drug establishment of Messrs. J. & J. Haslett, North Street. The flames were observed by a postman who was making an early morning collection of letters, and the brigade, arriving ten minutes later, prevented much damage resulting.

SOCIETY OF CHEMICAL INDUSTRY.—The programme of the arrangements for the annual meeting, to be held in Dublin in July, has been issued. This shows that on the afternoon of Tuesday, July 7, there will be a reception in the Entrance Hall of Trinity College at three o'clock; and in the Examination Hall of the same building the annual meeting will be held at 11 A.M. on Wednesday. At one o'clock luncheon will be provided, and at 2.30 a sail in Dublin Bay, the evening being filled by a *conversazione*. On Thursday, at 10.30 A.M., parties will leave the reception-room and proceed by tramcar from College Green to Messrs. Power & Son's Distillery, John's Lane, and thence to Messrs. A. Guinness, Son & Co.'s Brewery, by invitation of the firms. In the afternoon there will be a garden party, if possible, and in the evening the annual dinner. On Friday more excursions. Those who think of attending the meeting should communicate early with the honorary secretaries, Messrs. S. P. Boyd and W. G. Strype, 35 Dawson Street, Dublin.

ACTION AGAINST A CHEMIST.—The action for 1,000l. damages for alleged slander brought by the Alliance Gas Company against Mr. T. A. Mayne, T.C., photographic chemist, was Dublin, concluded last week in the Nisi Prins Court. The jury found that the defendant's speech did not bear the defamatory sense alleged, and that the charges which he made were made *bona fide* and without malice. A verdict was entered for the defendant.

A ROW AT A DRUGGIST'S.—On Saturday last the Cork magistrates had to investigate the circumstances attending a quarrel between two members of the staff of Messrs. Wm. Harrington & Sons, wholesale and pharmaceutical chemists, Patrick Street, Cork. A dispute had occurred between William George Williams, late accountant to the firm, and Frederick L. Smith, the manager, in reference to an invoice. Mr. Smith had asserted that the invoice had been sent to Mr. Williams's department, the latter declaring that this was not the case. Subsequently the invoice was found in Mr. Smith's drawer. Mr. Williams made comments on this circumstance in what he called a "decided," and in what Mr. Smith said was an "insulting," tone. Mr. Smith then said to him, "You are an insulting little cur, and deserve to have your eyes blackened," or words to that effect. Mr. Williams said his antagonist then shoved him against a chest of drawers, while Mr. Smith alleged that he was pushed by Mr. Williams. Cross summonses resulted, but Sir George Wycherley, for the bench, after hearing both sides, said the cases should be withdrawn, and he would express the opinion to Mr. Harrington that Mr. Williams should be reinstated in his employment. He was a good servant, and it was a great pity that this dispute should have occurred. He ruled that there was no assault on either side, and hoped that the matter would yet be amicably arranged. The parties consenting, both summonses were dismissed.

SCOTCH NEWS.

ABERDEEN.

ABERDEEN AND NORTH OF SCOTLAND SOCIETY OF CHEMISTS AND DRUGGISTS.—At the June meeting of this society arrangements were made for holding the annual picnic on July 2, at Aboyne, and through the kindness of Sir William Cunliffe Brooks, Bart, M.P., the company are to be permitted to drive up Glen Tana, to the foot of Mount Kean, when, after refreshments, those so inclined will make the ascent. As usual, members of the craft touring will be welcomed. At the same meeting hearty votes of thanks were passed, and ordered to be sent to Messrs. F. C. Calvert & Co., for a series of specimens of their products, and to Messrs. Macfarlan & Co., Edinburgh, for a series of specimens of the more uncommon alkaloids of opium.

EDINBURGH.

MUCKLE CRY AND LITTLE 'OO.—Two officers from Somerset House are perambulating Scotland at present examining chemists' tinctures. Methylated spirit is the rat they want to smell. They were last heard of at Stirling, going northwards.

NORTH BRITISH BRANCH.—The Executive is to meet on Tuesday next to elect office-bearers and transact other business. Owing to his indifferent health, Mr. Gilmour will not again, it is understood, accept the chairmanship. The persons present at the annual meeting on Wednesday were Mr. Storrar, vice-chairman; Messrs. Stephenson, Boa, McLaren, Gibson, R. L. Henrie, J. A. Forret, Edinburgh; Mr. Neshit, Portobello; Mr. Maben, Hawick; Mr. Murdock, Falkirk; Mr. Davidson, Montrose; and Fisher, Dunfermline.

CHEMISTS' ASSISTANTS' AND APPRENTICES' ASSOCIATION.—The second botanical excursion of the season took place on the evening of Wednesday, June 10, and was attended by forty members. The company travelled by the 8.30 Caledonian train to Colinton, and walked back through Colinton Dell, where some good practical work was done. Last year the excursion took place a fortnight earlier, when the dell was gay with hawthorn blossom; but this year not a single spray was to be seen, and many oak and ash trees were as bare almost as in mid-winter. Consequently, though many

promising specimens were met with, few were sufficiently advanced for collection as herbarium specimens. Among those met with were:—*Charophyllum sylvestre*; *Myrrhis odorata*; *Sanicula europæa*; *Scilla nutans*; *Allium ursinum*; *Ruscus aculeatus*, in flower; *Orchis mascula*, in full flower; *Geum rivale*, and *Geum intermedium*. It is interesting to note that the latter is one of the plants recently investigated by Dr. J. M. Macfarlane in his research on the relationship between the microscopic structure of hybrids and their parent plants. Many specimens of *Geum urbanum*, not in flower, were seen in the neighbourhood; and the *G. intermedium* is doubtless a hybrid between it and the *G. rivale*, which is also common here. Dr. Macfarlane found that the pollen of *G. intermedium* possessed characters quite intermediate between *G. rivale* and *G. urbanum*. He also found that about 60 per cent. of the pollen of *G. intermedium* is fertile, and therefore there is a probability that it will become a distinct species. Some other interesting specimens were secured. The next excursion is to Duddingston Loch, on Wednesday, June 24, at 8.45 P.M.

OBAN.

MR. MACFARLANE, chemist, of Oban, has lately erected new and handsome business premises. The material used is Ballachulish granite, with facings of freestone. The architect was Mr. G. Woulf Brienan, Oban. The shop, which is a double-fronted one, has been fitted in oak and mahogany, by Mr. Templeton, of Glasgow. A room has been specially fitted up as a consulting-room for a doctor, and there are, besides, a waiting-room, lavatory, stores, &c.

Personalities.

MR. SAMUEL HALL, chemist, of Church Street, Littleborough, has been appointed overseer for Blatchinworth and Calderbrook.

MR. FRANK WALKER, late honorary secretary of the Liverpool Pharmaceutical Students' Society, has succeeded to the business of the late Mr. R. H. Jones, Beacon Lane, Liverpool.

MR. RICHARD H. BREMIDGE, of Magdalen College, son of the secretary of the Pharmaceutical Society, is one of those who have taken first-class honours in science (chemistry) at the Oxford University.

MR. G. CLARIDGE DRUCE, M.A., F.L.S., Ph. chemist, and one of the examiners of the Pharmaceutical Society, has received a communication from the Queen, through Sir Henry Ponsonby, to the effect that Her Majesty has been graciously pleased to accept the dedication of Mr. Druce's work on the "Flora of Berkshire."

MR. ALFRED EDWARD STAMP, of Trinity College, Cambridge, who is fourth wrangler this year, is the son of Mr. Edward B. Stamp, pharmaceutical chemist, of Hampstead, where he was born on January 1, 1870. He was educated at the Mercers' School, 1881-1884, under Dr. Scott, and from 1884 to 1888 at St. Paul's School, with Dr. Walker as master and Mr. F. S. Macaulay, M.A., as tutor. In October, 1888, he came to Trinity with an exhibition from St. Paul's School, and was in due course elected a scholar and Perry exhibitor at Trinity.

MR. CHIENE, the Professor of Surgery in the Edinburgh University, has the reputation of being one of the most painstaking and delicate operators in Britain, thoughtful of the patient, and careful in the clinic. One day in the course of a clinical demonstration he turned to a student who had just commenced his studies, with the question: "Now, sir, can you tell me what is wrong with my dressing?" The ingenuous youth turned red, and preserved a discreet silence. Mr. Chiene, however, was not to be put off, and repeated the question. After a long pause the youth stammered out in a fit of desperation: "Well, sir, if you insist on my telling you, I should say your tie is not quite straight." As might be surmised this unexpected answer quite "brought down the house."

FRENCH PHARMACEUTICAL NEWS.

(From our Paris Correspondent.)

"FALSE ANÆMIA" AMONGST HORSES.—M. Paul Cagny, of Tenlis, veterinary surgeon, presented a paper at the Academy of Sciences on a form of typhoid found amongst horses, which he calls "false anæmia." He believes the cause can be traced to tainted water or dirty forage. His remedies are sulphate of quinine and veratrine.

WHO WAS TO BLAME?—A Mme. Guiraudet, residing at St. Etienne, was prescribed a soothing draught as a remedy for facial neuralgia from which she suffered. This was prepared by a pharmacist in the town. Scarcely had the deceased lady swallowed the first dose than she was seized with excruciating pains, and very shortly died. The police authorities have ordered a post-mortem examination.

SUPPRESSION OF FRAUD IN THE OIL TRADE.—At the Chamber of Deputies a draft of a new law was presented last Saturday, with the object of suppressing fraud in oil used for alimentary purposes. It is proposed that the nature of oils shall be plainly marked on the casks and other vessels, as well as on the invoices, bills of lading, &c. In this way it is hoped to prevent mixed or adulterated oils being sold as the pure article.

A NEW LANCET FOR VACCINATION.—The dangers of infection by a tainted lancet or needle during vaccination have been pointed out to the Paris Academy of Medicine, and a desire was expressed that a separate instrument should be used for each person. Dr. Mareschal, surgeon-major in the French army, proposes to use an ordinary steel pen, specially pointed, for this purpose. It may be either simply held between the fingers or put into a special holder. Its moderate price—about 1s. 8d. per 100—will, it is thought, ensure its widespread adoption.

A MANUFACTORY of mineral black and tripoli has been established at La Faye by M. Voiret, who produces annually some 400,000 kilos. of the black, and about half the quantity of the tripoli. Mineral black is the residue of thorough incineration of schist (shale) in closed vessels. It is thus calcined for eight hours, and what remains is gathered in closed metal boxes, and then cooled without being exposed to the air. It is then carefully sorted and ground to fine powder. This substance, known as "Auvergne black," is said to be obtaining popular favour for ship-painting, blacking, printing-ink, varnish, and other purposes for which an intense black is required.

PRESERVING NITRATE-OF-SILVER PENCILS.—At the last meeting of the Paris Society of Pharmacy, M. Barillé read a paper upon the preservation of nitrate-of-silver pencils in millet seeds. He stated that the proportion of water contained in these seeds (14.04 per cent.) prevents their being an effective medium. He found them blackened outside by the nitrate, and analysis discovered 1 gramme of silver per 100 grammes (indicating a loss of 1½ gramme of nitrate of silver). He pointed out that coriander seeds contain less water (only 11 per cent.). M. Villiers said that the seeds examined by M. Barillé must have been in contact with the nitrate for a long period. He had himself remarked that even after three years the nitrate had not spoilt the seeds.

PUMICE STONE fastened to wooden points and moistened with tincture of iodine is suggested in the *Dental Register* as useful to remove the green and brown stain found on the teeth of young subjects.

THE GINGER HABIT.—The doctors in Philadelphia are making complaints of the manner in which women and girls take strong tincture or essence of ginger as a substitute for whisky or other intoxicants less easily and respectably obtainable by would-be ladies. This is not, however, confined to Philadelphia, as the writer well remembers a case at Nottingham, some seven or eight years ago, of a provincial tradesman who took at one chemist's from three to six doses a day of tinct. zingib. fort., varying from 5ij. to ʒss. each time. The gentleman in question professed to be a teetotaler and conspicuously displayed the blue ribbon at his buttonhole.



LEAD IN TARTARIC ACID.

ON Friday last week, James Munn, grocer, 220 and 222 London Road, Glasgow, was charged, before Sheriff Balfour, with having, on May 6, sold $\frac{1}{2}$ lb. of tartaric acid which, on analysis, was found to contain .12 per cent. of sulphate of lime, which is extraneous to tartaric acid, and also .0055 per cent. of lead, which is extraneous to tartaric acid, this proportion of lead being equal to .38 of a grain of lead per pound of the sample. The case had been continued for proof from a former hearing, Mr. Munn pleading not guilty. Mr. John Lindsay prosecuted on behalf of the Sanitary Inspector, and Mr. Shaw, solicitor, appeared for the defence.

Evidence respecting the sale of the sample referred to was given by Inspectors Inglis and Armstrong.

Mr. Robert T. Thomson, assistant to Dr. Tatlock, City Analyst, was called on behalf of the prosecution. In answer to questions put by Mr. Lindsay, he said he had analysed several samples of tartaric acid with a view specially to finding traces of lead. He had analysed not above thirty samples altogether, and in three of these he had failed altogether to discover traces of lead. The percentage of lead found in the other samples had ranged from .002, which was very small, to .02. He accounted for the presence of the lead by the fact that the tartaric acid was manufactured in leaden vessels. The tartaric acid dissolved a little lead from the leaden vessel. A tin vessel would obviate the objectionable impurity, and he thought the acid could be made as well in a tin as in a lead vessel. He was aware of the prosecutions which had been conducted in the aerated-water cases, and that the result had been in some cases, at any rate, tin receptacles had been substituted for leaden ones. The impurity could also be obviated by the chemical process of recrystallisation. This fact was mentioned in the "Encyclopædia Britannica."

Mr. Lindsay: I suppose the danger is, while in one particular instance there may not be a great quantity of lead, persons might be taking aerated waters or tinned meats in which there might also be traces of lead, and the cumulative effects would be dangerous?

Witness: Yes; that is the danger.

Mr. Lindsay: Your experience shows that this adulteration is not unavoidable?

Witness: It certainly is not unavoidable.

Mr. Lindsay: I suppose it comes to be a question of expense?

Witness: There is no doubt it will all add to the expense.

Mr. Lindsay: Are you aware that it is much cheaper to provide leaden vessels than tin ones?

Mr. Shaw: I think the tin will be cheaper than the lead.

Mr. Lindsay: No; there is a great difference. I suppose there is this further element, too, that the lead can be wrought more easily.

Witness (continuing) said the sulphate of lime could also be avoided by the process of recrystallisation. There was no other way.

In reply to questions put by Mr. Shaw, witness said he had found sulphate of lime in all the samples except one.

Mr. Shaw: Now, is it the case that commercial tartaric acid is seldom free from lead?

Witness: Oh, yes; I think that is quite a correct expression.

Mr. Shaw: I show you here a sample, dated August, 1890, in which the percentage of sulphate of lime is .14 per cent.,

and of iron .05. The analyst (Dr. Tatlock) suggests that this sample is not quite pure, although the proportion of foreign matter it contains is very small, and that the percentage of sulphate of lime is too small to be objectionable. Do you know that Dr. Tatlock is of opinion that .12 per cent. is not objectionable?

Witness: It certainly is not objectionable in the matter of danger to health.

Mr. Shaw: Is sulphate of lime a necessary constituent of tartaric acid?

Witness: I do not consider it a necessary constituent. In most commercial samples it is a constituent. It is used in the preparation of the acid.

Mr. Shaw: Have you ever taken part in the manufacture of tartaric acid?

Witness: No; it is a most involved process.

Mr. Shaw: You know that special apparatus has been provided by those who do that kind of business?—Yes.

Have you ever heard of persons using block tin?—No.

Is it a suggestion of yours?—No, not a suggestion of mine. (Laughter.)

Well, a suggestion of the prosecutor?

Mr. Lindsay: That is more like the thing. (Laughter.)

Witness (continuing) said in the sample under consideration there were 55 parts of lead to every 1,000,000 parts of tartaric acid. The sulphate of lime was unavoidable under the circumstances.

The Sheriff: I think from the way you speak you lay no emphasis on the presence of sulphate of lime?—No, of course we cannot object to that on the score of danger to health as we do in the case of lead.

The Sheriff: The mere fact of the presence of .12 of sulphate of lime in a quarter of a pound of tartaric acid is really not objectionable?—Not on that score.

The Sheriff: We need not say much more about sulphate of lime. About lead, would 55 parts to a million be objectionable?

Witness: It would require medical evidence on that point: .05 in water is considered dangerous.

The Sheriff: Have you ever heard of 55 parts to a million being considered dangerous?

Witness: In water it is much less than that, but people take more water than tartaric acid. It is a question for a medical expert.

The Sheriff: Do you understand that the article known in commercial circles as tartaric acid is always manufactured in leaden vessels?

Witness: As far as my experience goes it always is. I have never heard of its being manufactured in block-tin vessels.

The Sheriff: So that you would prefer from a public health point of view that, even looking to the presence of 55 parts to the million, tartaric acid should be manufactured in block-tin vessels?—Yes.

The Sheriff: Did you ever hear of its being eliminated by crystallisation?

Witness: It is just that article in the Encyclopædia that I go by. It says it should be removed by crystallisation.

The Sheriff: You never heard of the commercial article being recrystallised?

Witness: I do not know that any manufacturer has ever endeavoured to turn out an article quite free from lead. Continuing, witness said he had never himself recrystallised tartaric acid, and he did not know whether one crystallisation would do or not. The effect of the process on all salts was to purify.

The Sheriff: Your object as a public analyst would be that the vessels it is manufactured in should be of block tin, or that it should be recrystallised?

Witness: Yes.

The Sheriff: In that case, I do not think there is any use in going on with this prosecution.

Mr. Shaw: I have two medical gentlemen here—Dr. Glaister and Dr. Milne—to state that the proportion of lead is so infinitesimal that it would not injure the public health.

Mr. Lindsay: Dr. Russell (Officer of Public Health) was inclined to say that this, being one of these cumulative poisons, was a dangerous thing to tamper with.

The Sheriff: The same as the stuff that gives a bloom to the green peas—it depends on how much you take. It is a very useful prosecution. It will all be reported, and the

next question will be whether these gentlemen have any right to go on with the manufacture in leaden vessels.

Mr. Shaw: My opinion is that it can't be manufactured in any other way.

Mr. Lindsay: Then you will have to go in for recrystallisation.

The case was then dismissed.

PAREGORIC SINE OPIO.

At the West Riding Police Court, on June 8, Peter Campbell Forbes, manager of the Morley Drug Stores Company, was charged under the Sale of Food and Drugs Act with selling paregoric which was not of the nature and substance demanded by the purchaser. According to the statement of the solicitor, which was borne out by the certificate of the analyst, opium is an essential constituent of paregoric; but the sample did not contain the slightest particle of opium, and was sold as paregoric elixir. A fine of 40s. and costs was imposed.

ANALYTICAL BUSINESS.

At the Brentford County Court, on June 9, Mr. A. W. Berry, chemist, Hanwell, sued Mr. G. S. Holmes, baker and wine merchant, High Street, Hanwell, to recover the sum of 2l. 2s., in respect of an analysis made by Professor Attfield of certain bread, which analysis plaintiff procured at the request of the defendant. Defendant disputed the claim, on the ground that the plaintiff had undertaken to obtain the analysis at the amount of Professor Attfield's own charge for it, which charge was 1l. 11s. 6d. Plaintiff, in reply to this, said that the defendant wanted him to work without a profit, which no man of business could afford to do. His Honour gave judgment for the amount claimed, but refused to allow costs.

NO PROPERTY IN A SECRET FORMULA.

A SINGULAR case—*De Beer v. Graham and others*—was tried in the Equity Court of Sydney, N.S.W., on April 6, before Mr. Justice Owen, whose judgment is reported in full in *The Chemist and Druggist of Australasia* for May 1. The facts were briefly as follows:—The defendant Graham sold to the plaintiff De Beer all his estate and interest in a certain specific for curing foot-rot in sheep. He disclosed to him the true and correct ingredients and process of making the specific, and the plaintiff since the purchase carried on business as the "Graham Permanent Foot-rot Cure Company," and registered two trade-marks to be used in respect of the said specific manufactured by them. Subsequently Graham sold to the co-defendants—Leeds, Seale, and Bennet—the secret of his said invention, and these defendants had applied for letters patent in the name of Graham, as trustee for them for the said specific. The plaintiffs alleged that the latter defendants bought with notice of the plaintiffs' rights, and that even if they had no notice their purchase could not override the plaintiffs' previously acquired rights. Leeds, Seale, and Bennet demurred to parts of the statement of claim, alleging that the secret preparation was not the subject of a patent, and that they having purchased for value without notice, the plaintiffs had no monopoly of the manufacture of such preparation.

The question, said Mr. Justice Owen, does not turn on any alleged infringement of a trade-mark, or attempt to sell as goods manufactured by the plaintiffs goods manufactured by the defendants, but whether the defendants being purchasers for the value without notice, the plaintiffs can restrain them from manufacturing and selling the specific for the cure of foot-rot in sheep. No case was cited before me during argument, nor can I on further search find any case that clearly defines the right of the possessor of a secret process of manufacture, not protected by patent; most of the cases seem to go on some contract, trust, or confidence on the part of a particular defendant. In my opinion the discoverer of a secret process cannot, until he has obtained a patent, claim any property in such process as against the world; and if so he cannot transfer any property against the world to a purchaser. Property may be defined to be the exclusive right to the possession or enjoyment of something; such right may be limited by time or by conditions, but while

it lasts it must be exclusive. So long as the secret remains undivulged it remains the exclusive possession of him who has the secret, but when divulged or rediscovered, the exclusive possession has ceased, and I cannot see any principle on which the divulgence of the secret can be restrained, unless there be contract or relationship between the parties of trust or confidence, or some fraud in acquiring the secret. In all such cases the court acts on the conscience of the party and not on any ground of property. In *Canham v. Jones*, 2 V. and B., 218, the plaintiff was the devisee of Swainson, who for thirty years had been the sole proprietor of a secret or recipe for preparing a medicine called *Velno's Vegetable Syrup*. The defendant was a servant employed in the preparation of the medicine, who sold a spurious preparation under the name of *Velno's Vegetable Syrup*. Sir Thomas Plummer, V.C., said: "This bill proceeds upon an erroneous notion of exclusive property now subsisting in this medicine, which Swainson, having purchased, had a right to dispose of by his will, and, as it is contended, to give the plaintiff the exclusive right of sale of. If this claim of monopoly can be maintained without any limitation of time, it is a much better right than that of a patentee," and he held that if any exclusive right in the medicine ever existed it had long expired. In *Williams v. Williams*, 3 Meriv., 157, a motion was made to dissolve an injunction granted by the Vice-Chancellor to restrain the defendants from divulging or exposing the secrets in the bill mentioned, and from making or selling the medicines therein mentioned. Lord Eldon, in delivering judgment, said: "But so far as the injunction goes to restrain the defendant from communicating the secret, upon general principles I do not think that the court ought to struggle to protect this sort of secrets in medicine. The court is bound, indeed, to protect them in cases of patents to the full extent of what was intended by the grant of the patent, because the patentee is a purchaser from the public, and bound to communicate his secret to the public at the expiration of the patent. Then, whether the principle can be extended to such a case as this—whether a contracting party is entitled to the protection of the court in the exercise of its jurisdiction to decree specific performance of agreements by restraining a party to the contract from divulging the secret he has promised to keep, is a question which would require very great consideration." The later decisions of the courts have now established the right of a purchaser to restrain the divulgence or disposal of a secret on the ground of breach of contract, or of trust or confidence, but not on the ground of any right of property in the secret process. . . . In *Morrison v. Moat*, 9 Hare, 241, the court granted an injunction, the Vice-Chancellor stating "that the court fastens the obligation on the conscience of the party, and enforces it against him in the same manner as it enforces against a party to whom a benefit is given the obligation of performing a promise, on the faith of which the benefit has been conferred." And again, he says: "It may well be that the plaintiffs have no title against the world in general, and may yet have a good title against their defendant"; and adds, "It might, indeed, be different if the defendant was a purchaser for value of the secret without notice of any obligation affecting it." In *James v. James*, 13 Eq., 421, Lord Romilly, M.R., says: "I am of opinion that when a person has discovered a valuable invention and has not patented it, anyone who has discovered the ingredients (I am not talking of the case of a breach of trust, or of fraud, or the like) may sell those ingredients." No doubt, in *Massam v. Thorley's Cattle Food Company*, 14 Ch. D., 748, the case of *James v. James* is not approved, but the disapproval related to the right to use the name of the invention, and not to the passage I have quoted from Lord Romilly's judgment. In the note in "*Chitty's Equity Index*" of the case of *Browne v. Freeman*, 4 N.R., 476, 12 W.R., 305, it is stated: "The court does not recognise property in unpatented articles, and will not interfere to restrain the sale of spurious articles though described to be the same as those manufactured by another, unless such articles are held out by the imitator to be the manufacture of that other person." In the report in the *Weekly Reporter* the first part of this note does not appear, and I have not got the new reports to refer to, so that I cannot rely altogether on this dictum. . . . Mr. Simpson's argument was that the plaintiffs and defendants were both purchasers of an equitable interest or estate, and that therefore the maxim applies,

Qui prior est temporis prior est jure (Phillips v. Phillips, 4 Deg., F. and J., 208); but that maxim applies only where there is a conveyance or assignment of an equitable estate or interest—in other words, where property passes; but in the case of a secret process, or recipe, I am of opinion there is no such property at all until letters patent issue. It was further contended that as the defendants—Leeds, Seale, and Bennet—had applied for letters patent in the name of the defendant Graham, Graham would be bound to hold such patent for the plaintiffs, and that in that way the plaintiffs would have what was equivalent to the legal estate; but the statement of claim alleges that the patent is intended to be issued in the name of Graham, as trustee for the defendants, Leeds, Seale, and Bennet, who are purchasers for value without notice. I cannot, therefore, see what equity the plaintiffs would have to compel Graham to hold the patent in trust for them. The rights of the parties must be determined by the equities existing at the time of the sale to the defendants, and as in my opinion no property passed by the sale to the defendants, and as there is no breach of contract, trust, or confidence on the part of the defendants, I must allow the demurrer, with costs.

BEECHAM v. THOMPSON.

IN the Chancery Division of the High Court of Justice, on Tuesday, June 16, Mr. Justice Romer had this action before him. The plaintiffs are the proprietors and manufacturers of "Beecham's pills" and "Beecham's patent pills," carrying on business at St. Helens, Lancaster, and elsewhere, by means of agents, and have carried on such manufacture and sale for forty-three years. The defendant is a chemist and druggist carrying on business at 87 Hendon Road, Sunderland. The plaintiffs alleged that the defendant had been in the habit of selling pills not manufactured by them as "Beecham's," and that purchasers had been induced to believe that they were purchasing "Beecham's pills," and that, in consequence thereof, they (the plaintiffs) had suffered serious damage. On October 31, 1890, the defendant gave an undertaking that he, his servants, and agents would not until the trial of the action sell, or offer for sale, as "Beecham's pills" or "Beecham's patent pills" any pills not manufactured by the plaintiffs. The plaintiffs now claimed a perpetual injunction in the terms of that undertaking, damages, and costs.

Mr. Haldane and Mr. Eve appeared for the plaintiffs; and the defendant was represented by Mr. R. J. Simey.

Mr. Eve stated that his lordship would not be troubled with any evidence, because the plaintiffs had been served with a notice by the London agents that the defendant would submit to an injunction. He, therefore, now asked that the injunction might be made perpetual, and that the defendant might be ordered to pay the costs.

Mr. Simey said that until the middle of last week the defendant had every intention of fighting this action, but about then he discovered that his assistant was unreliable, and he was advised that he had not the least chance of successfully defending the action. A letter was thereupon written on behalf of the defendant saying that he intended to submit to an injunction. This course having saved the plaintiffs the expense of bringing up their witnesses from Sunderland, he submitted that the defendant ought to be allowed something in the nature of a set-off in the matter of costs. Further than that, the action was one which could have been brought in the county court at much less expense.

Mr. Justice Romer: If it was transferable, why did not you apply to have it transferred?

Mr. Simey did not think it was transferable after the plaintiffs had selected the venue.

Mr. Eve said the plaintiffs would not ask for damages.

Mr. Justice Romer, in giving judgment, said the point he had to consider was whether the plaintiffs ought not to be entitled to have the costs of the action paid to them. He thought they ought. It was a case of fraud, where the defendant, as alleged by his servants, had been selling pills which were not of the plaintiffs' manufacture as and for the plaintiffs' pills. Just as the case came on for trial the defendant perceived that he could not resist the plaintiffs' case, and at the last moment he informed the plaintiffs that he would have to submit to a perpetual injunction. Having

heard what had been said on behalf of the defendant, he could see no sufficient reason for depriving the plaintiffs of their costs. Accordingly he should order the defendant to pay the plaintiffs' costs. Of course the taxing-master would take care to see that the costs which he taxed were costs properly incurred by the plaintiffs in bringing the action. The plaintiffs having waived their claim for damages, there would be a perpetual injunction against the defendant, with costs, and liberty to apply.

BEECHAM'S PILLS IN SCOTLAND.

IN the Court of Session, Edinburgh, on Wednesday last, evidence was led before Lord Kyllachy in an important action at the instance of Thomas and Joseph Beecham, patent-medicine manufacturers and proprietors, St. Helens, Lancashire, against Duncan Macgillivray, surgeon and physician, Norfolk Street, Southside, Glasgow. Plaintiffs desire interdict against the respondent from in any way offering for sale or selling, by himself or by others acting under or for him, as pills manufactured by complainers, pills not manufactured by them, in implement of orders or requests for Beecham's pills or Beecham's patent pills. It is alleged by the Messrs. Beecham that pills were sold by Dr. Macgillivray as Beecham's pills so as to induce the purchasers to believe that they were purchasing the complainers' pills.

Sarah Ann Harding, the first witness called for the plaintiffs, was examined by Mr. Dickson. She said she resided at Bristol, her husband being a brewer by trade. She was asked by Mr. Dowse, the travelling agent for Messrs. Beecham, to go to Glasgow to make certain inquiries. She first visited Dr. Macgillivray's shop on November 27, 1890, and asked the person in charge to make up a prescription for her. That having been done, she requested to be served with a pennyworth of Beecham's pills. She received the pills shown her in a box, which she marked and then handed to Mr. Dowse. On December 3 she returned, and asked for some teeth-powder and another pennyworth of Beecham's; and on the 11th of the same month she returned for the same articles, in company with a lad named George Lockhart. It was Lockhart on the last occasion who got the pills. She saw the assistant take the pills from a china jar, and hand them over the counter, using the words, "Beecham's pills." The pill-boxes were all handed to Dowse, and it was obvious they were not Beecham's. She went back to the shop on December 15 along with a man named Joseph McVey.

His Lordship: Another amateur detective. (Laughter.)

Witness, continuing, said: It was arranged McVey should go in and ask for a pennyworth of Beecham's pills. He was supplied from the same jar, but they were not genuine.

You know the appearance of Beecham's pills?—Yes; they have a yellowish appearance. One box was wrapped in half of a Beecham's circular.

Cross-examined by Mr. Jameson, witness said she was not connected with the firm in any way; but she had been asked several times to purchase pills as she had on the occasions in question.

When did you first begin to act as a detective?—I am not a detective.

You look something like it. When did you begin going about asking for pennyworths of Beecham's pills up and down the country?—I have got them a good many times on my own account.

When did you first go on the instruction of Mr. Dowse or anyone? I could not say exactly.

Would it be one or two years ago?—No.

How long ago?—Not one year. Mr. Dowse asked me first.

What was your connection with him?—No connection whatever.

Did you know him before?—Merely as a friend.

Does he live in Bristol?—No.

Where does he live?—He is not resident permanently anywhere. He is the travelling agent, with no fixed residence.

What was the engagement between you and him?—I was to be paid for my trouble and time. I got my travelling and personal expenses.

Were you paid anything more?—Not much; not so well paid as I should have expected.

But I must know about this bargain?—There was no bargain at all.

On what conditions were you to go and do this work?—I do not quite understand you.

You are not so stupid as all that. Were you paid by the month, the week, or any other time?—I told Mr. Dowse the expenditure to which I was put.

His Lordship: But what beyond your expenses for your trouble?—I cannot exactly say.

Counsel: On what footing are you to be paid, or is it fixed?—No; it is not.

Is your payment to depend upon the success of the Messrs. Beecham in this case?—No; nor in any other case. I leave the payment to them. Continuing, witness said she was in Glasgow for about a week; but she could not say how long exactly she had been engaged by the Messrs. Beecham. She could not remember how long or often she had been away from home in the year 1890; but she might say twice or thrice. She was absent from Bristol about three weeks the first time.

Is this your only employment?—No; I live with my husband.

Then what is it; is it your amusement?—Yes. (Laughter.)

Witness (turning to his lordship): My lord, are these questions such that I ought to answer?

Lord Kyllachy: I suppose your answer is that you are employed at home, and going about on these journeys expecting to be paid.

Witness, proceeding, said she was under no other engagement to the Messrs. Beecham.

Were you told by Mr. Dowse how Beecham's pills were sold?—I knew that before—in boxes of two sizes.

At what price?—I do not know that.

9½d. and 1s. 1½d.?—Something like that.

And with a Government stamp upon the boxes?—Yes.

You know, I suppose, that was the way, and only lawful way, in which Beecham's pills could be sold?—They can be sold in pennyworths. I always buy them in pennyworths. Witness, on being pressed, said she had bought them in that quantity a dozen times, but she could only remember one address, an address in Birmingham. On further questioning, she added she had got a genuine pennyworth of Beecham's pills in Glasgow, but she could not state the name of the vendors. She knew they were genuine from their appearance, with which she was well acquainted. She knew that the stamped boxes were opened and retailed in pennyworths, and it was in order to see if the genuine article was supplied that she was sent to Dr. Macgilivray's and other shops. In fact, she was instructed to ask for pennyworths. When she was served by Dr. Macgilivray's assistant he made no remark.

Did he make the remark that he had Beecham's pills, but that he could not give you so small a quantity?—No.

How many pills do you expect for a penny?—Four. Continuing, witness detailed that on all her visits to the shop she got the same pills, and marked the boxes outside the premises, or at her lodgings. She denied at first going into public-houses to do so; but, on further recollection, admitted that in the course of her purchases through various shops in Glasgow and Paisley she had done so.

James Thomson, a youth of 16, living at Springburn, Glasgow, was next examined. He remembered one day when he had left off business a man came to him, whom he afterwards knew as Mr. Dowse, and asked him if he would like a job. He said, "Yes, sir." The job was to go in for a pennyworth of Beecham's pills to certain shops. They went into the Gallowgate and he entered two or three shops, and then they went to Macgilivray's, in Norfolk Street. Mr. Dowse went in for a seidlitz powder, and then witness followed for the pills. The person who served him said nothing when he asked for Beecham's, but took from a blue jar a number of pills, put them in a box, and handed them to him. Mr. Dowse went out in front of him, and witness handed the purchase to him.

Cross-examined: Dowse promised to give him 2s. for each job, but he had never seen his employer before when he accosted him. He made about 14s. altogether. To Macgilivray's shop he went three times. He had gone to four shops, but in the first one he was refused, with the remark they only kept them in boxes. He told Dowse that. Dowse,

after the first visit, ordered him to meet Mrs. Harding at his (witness's) master's shop, in Buchanan Street, on December 11. George Lockhart, another witness, was with him. They went to Paisley and made purchases there. They went back another night to Macgilivray's, and Lockhart heard him ask for a pennyworth of Beecham's. Witness heard the man say that he did not sell them in pennyworths, and they told Dowse that Lockhart had been refused.

Was it the same man every time you saw in Macgilivray's?—No; the first time another gentleman supplied me.

Defender, who was in court, was then identified by witness as the person who served the articles.

George Lockhart, another lad, apprentice to an upholsterer in Glasgow, said that at the request of Thomson he met Mrs. Harding. She sent him into several shops to ask for pennyworths of Beecham's pills. He followed her into Macgilivray's premises, and in her presence asked for the quantity of Beecham's pills. The assistant said "Beecham's pills," and then handed him a small box containing pills.

Cross-examined: He earned about 1l. for the week. On the second occasion he was told that they only sold these pills in stamped boxes. He never was asked the purpose for which they were wanted. He accompanied Mrs. Harding to Paisley, where they purchased small quantities of these pills, and marked the boxes, either in the train or in a public-house. He was positive that Macgilivray's assistant said "Beecham's pills," not "bilious pills."

Thomas Stewart said he stood at the North British Hotel, Glasgow, to get orders from commercial travellers. He was employed by Mr. Dowse to go to shops to purchase pennyworths of Beecham's pills. First he went to the Gorbals and purchased blue ointment and the pennyworth of pills. Then he went to another shop, in Main Street, and afterwards to Macgilivray's, and purchased the same articles. He then handed the boxes to Dowse, who said witness might keep the ointment, as he had no use for it. (Laughter.) He initialed the various boxes.

Cross-examined: The lad in Macgilivray's made no remark when he handed over the pills. He was paid at the rate of 1s. for the first house, and 8d. for the remaining houses.

A nice easy job, I suppose?—Oh, yes; a very nice easy job. We porters get some very curious jobs sometimes. (Laughter.)

Joseph McVey, another porter, spoke to accompanying Mrs. Harding to Macgilivray's, and getting a pennyworth of what was supplied as Beecham's pills. When he got to the outside of the shop he handed the box to Mrs. Harding, and they adjourned to a public-house, when he placed his initials upon it.

Cross-examined: He was paid the ordinary porter's wages for the job.

Edward F. Dowse said he was travelling agent for the complainers, and at present lived in Preston. On December 10, 1890, he spoke to the witness Thomson as he had received information from Mrs. Harding, whom he had employed, that spurious Beecham's pills were being sold in Glasgow; consequently he wanted to verify her statements, and that led to the employment of Thomson. Witness, it was arranged, should go into the shop and being present should see whether Thomson was served. He was to ask for a pennyworth of Beecham's pills. Witness asked for a seidlitz powder, and whilst he was taking it Thomson entered and asked for the pennyworth of Beecham's pills. The man behind the counter took the pills from a small blue china jar and put them into a box and handed them to Thomson in witness's presence. On examination of the box outside the shop he saw at once they were not Beecham's pills.

Are Beecham's pills frequently sold in pennyworths all over the country?—It is quite a common practice. There are three sizes of boxes and two descriptions of pills—the one the ordinary pill, and the other the "Magic Cough." (Laughter.)

His Lordship: How can you divide these boxes of 9d. into pennyworths?

Witness: They buy them in wholesale quantities, and then they get the advantage. Co-operative stores sell at 7½d.

How many would you get for a penny?—Four, I suppose—sometimes three.

You got a number of pills from other people in Glasgow?—Yes. Proceedings were taken against them, and interdict obtained. There were some ten cases in Scotland in all.

Cross-examined by Mr. Jameson: Beecham's pills were sold in boxes of three sizes—2s. 9d., 1s. 1½d., and 9½d.

His Lordship: That does not include the "Magic Cough," I suppose? (Laughter.)

Cross-examination continued: Each of these boxes was in accordance with the Excise regulations, having upon them the Government stamp as a patent medicine.

Are you not aware it is not legal to sell these pills except boxes with a Government stamp?—I believe it is perfectly legal to open boxes and sell in pennyworths so long as they are not put in other boxes. If they are put in paper they can be sold in pennyworths. That is the way in England. I believe you are not entitled to put them in another box. It is the practice of the trade. I have got Beecham's genuine in penny pill-boxes, but whether it is legal or not I cannot say.

Why not instruct your people to ask for Beecham's in boxes?—Because it was in the pennyworths we detected the fraud first of all.

When did you first become acquainted with Mrs. Harding?—I have known her for three or four years, and I employed her to do this business in Glasgow.

On what terms?—I asked her to go round and inquire. I made no specific terms at all. She had her expenses paid through me.

Have you paid her anything else than expenses?—I do not know. She may have had the present of 1l. for cases where they had been successfully conducted.

Is she to be paid anything more for it?—No, she is not.

There is no condition as to whether she is to be paid or not?—Just as I please.

I suppose you will be pleased to give her more if you are successful in these cases?—Not at all. I do not suppose I will give her any more. I might give her something, and I might not.

These pills you got from Macgilivray showed not the least attempt to imitate Beecham's pills in any way?—No; neither in size or colour. Witness added that the other cases in Scotland had not been defended.

Charles Rowed, the next witness, said he had been manager of Messrs. Beecham's manufactory for the last five years. He had received reports from time to time about the sale by dishonest dealers of spurious Beecham's pills. The specimens and complaints proceeded from chemists in the neighborhood of the sellers complained of; that was, the honest dealers had sent him these pills to point out the dishonest traders, and asking the firm to take action. The pills in question sent to them were not the genuine Beecham's. In consequence of that, Messrs. Beecham had taken action against a great number of chemists in England and Scotland—twenty-five in England, and, he believed, nine or ten in Scotland. About eighteen months ago they began to take these proceedings. They did not take action for a considerable time, although they knew the substitution business was being carried on. They allowed the people who were doing this dishonest work to apologise and promise not to do it again. They were cautioned. The firm found they continued the practice, and no other conclusion was left but to institute proceedings. He remembered receiving from Mr. Dowse the samples of Beecham's obtained from Dr. Macgilivray, which he had not the slightest doubt were not Beecham's pills.

Cross-examined: The pills obtained from Dr. Macgilivray did not resemble Beecham's pills in the slightest degree, and they would deceive no person who knew what the firm's pills were.

You sell these pills only in boxes with the Government stamp upon them?—That is all.

Have they got the appropriate stamp according to the value they have to be sold at?—They have.

You intend, I suppose, that they should be sold only in boxes?—We prefer so.

Not in pennyworths, but rather in boxes?—Then there would be no fraud.

Don't you know that the chemist has no right to sell a patent medicine without a Government stamp upon it?—I am not aware of that.

Did you give instructions to Mr. Dowse to ask for pennyworths of these pills?—Yes, I did.

And not to ask for boxes?—He could ask for anything he liked. Probably he asked for pennyworths as being the

most likely way of finding out whether there was any fraud or not.

Now, don't you know that many chemists think they cannot sell patent pills except in the box with the Government stamp?—I do not. My knowledge on that point is taken from THE CHEMIST AND DRUGGIST. That is, that retailers are allowed to open patent pill boxes—allowed to break the stamp, and retail the contents.

Have you noticed that practice obtaining in Scotland?—Up to the time of Dowse coming to Scotland I do not remember having any information about the practice of the trade here. Witness went on to say that he could not remember a Dr. Fonkerman, of St. Helen's, coming to him on behalf of Dr. Macgilivray, and saying on his behalf that he denied all knowledge of his assistant having given ordinary pills in substitution of Beecham's; and further that, had his assistant done such a thing, which he disclaimed, the firm might rest assured no such thing would occur in the future.

This closed the evidence for the pursuers.

Duncan Macgilivray, the defender, then entered the box, and, in reply to Mr. Jameson, said he was a M.B. and C.M. of Glasgow University, having been licensed in the year 1883. He had practised in the Southside of Glasgow ever since. He had a surgery in Norfolk Street, with a consulting-room behind, the former being kept for the making-up of his prescriptions. He also kept in the surgery medicines of various kinds. After giving the hours which he attended at the surgery, witness said that his assistant, Mr. Craik, always locked the door of the shop when he went for dinner. Witness never served behind the counter of the surgery. His assistant had a weekly wage, with no other interest in the business. The assistant had been with him for a year and a half, and had had about eight or nine years' experience in another situation. He had had no reason to be dissatisfied with his behaviour. As to the sale of patent medicines, witness always understood that they must be protected by stamp. They were not allowed to break the stamp and sell as a sample. When a patent-medicine box was broken, if they sold one pill out of the box, and put it in a paper or box before selling it as a patent medicine, you would have to put a 1½d. stamp upon it. He purchased his Beecham's pills from James Taylor, Trongate, Glasgow. He had procured a statement from Taylor for the period from February, 1889, to December 12, 1890, and there he found he had purchased 3l. 10s. 6d. worth of Beecham's pills. He had never prescribed Beecham's pills in the course of his practice. He had never been asked for a pennyworth of the pills in his life.

You know of no box of Beecham's pills being opened and sold in small quantities?—Never to my knowledge. My shopman had no authority to do such a thing. Beechams, like other patent-medicine manufacturers, were in the habit of sending out handbills; and these were generally used for wrapping up articles supplied. He observed his name printed on Beecham's handbill, and he gave instructions to his assistant to tear the name off if he used it.

Cross-examined: Practically the bulk of pills, apart from chemical analysis, so far as appearance went, were quite the same.

Luncheon time having arrived,

His Lordship suggested to counsel that they might consider whether their purpose had not been served, whether Mr. Jameson was satisfied that Beecham's pills had been sold in this shop; and, on the other hand, whether Dr. Macgilivray had been personally conversant that they had been sold.

On resuming, counsel stated they could not agree.

William Craik, the assistant, was then called. In answer to Mr. Jameson, he said he had in the course of his experience been occasionally asked for small quantities of Beecham's pills, but his answer invariably was he could only sell in stamped boxes.

You saw the boys to-day. Did you sell pennyworths of Beecham's pills to them?—No, I did not.

Did you ever see them before?—Not as far as I remember.

Did you ever sell the pills produced as Beecham's pills?—Never.

Have you, when people asked for a pennyworth of Beecham's pills, given those pills instead?—Not as a substitute.

Have you ever, when people asked for Beecham's pills, desired to know what they wanted them for?—No; I have never asked an explanation at all.

Do you know anything of the medicinal properties of Beecham's pills?—No. Witness added that he had never seen a Beecham's pill until he was placed in the witness-box and a specimen put into his hand. He had never seen an open box before.

After some further evidence of an unimportant character, counsel addressed his lordship.

Mr. Dickson maintained for the plaintiff that the defender had sold pills as Beecham's to his witnesses, whose credibility his lordship could judge of.

Mr. Jameson, for the defender, held that the witnesses for the plaintiff could not be held to have given their evidence in a manner which would meet with the approbation of the court. They had all been employed for a specific purpose. Moreover, he held that the plaintiffs had acted in an illegal manner in permitting their drugs to be vended in such small quantities as pennyworths. The Act 52 George III., c. 150, section 2, was most specific on the subject. The Act 44 George III., c. 93, was also in point—the Act which laid the duties upon these articles. Altogether, taking the facts into consideration that the defender's assistant denied having ever sold Beecham's pills in such small quantities, and that he was as good a witness as the others, he held that no interdict should be granted.

His Lordship said he would take the case into consideration, and give judgment shortly.

A CONTRACT FOR PEPPER.

AN action by Messrs. Schroeter & Co. v. Delpech, tried before Mr. Justice Day and a common jury on Thursday, was brought to recover damages for breach of contract to purchase a parcel of about five tons white Singapore pepper. Mr. Pike and Mr. Hodges appeared for the plaintiffs; Mr. Witt for the defendants. An attempt was made by counsel to settle the case, but unsuccessfully, and it proceeded.

It appeared from the opening statement of Mr. Pike that the plaintiffs were a firm of Mincing Lane merchants, carrying on business in Amsterdam and London, of which Mr. Carl Schroeter was the London partner. On June 26, Mr. Foxall, of the firm of Foxall & Peacock, made an offer to him of 9½d. a pound for five tons of pepper, to be delivered in London or Havre at buyer's option, to be shipped during August or September. Payment to be made in cash in London on the arrival of the vessel. In due time the pepper arrived, and notice was given by the brokers to the defendants, for whom they had bought. Before the pepper arrived, however, the plaintiffs' firm dissolved partnership, and Messrs. Albert & Hngo Greeff were appointed their agents to collect outstanding debts and carry out pending transactions. These gentlemen, therefore, had some correspondence with the defendants, to whom the shipping documents for the pepper were repeatedly tendered; but they declined to take them up, and ultimately the plaintiffs appointed two arbitrators (the defendants declining to join in the appointment), under the rules of the London Produce Market, who made an award, in December, that the defendant must pay the contract price on presentation of the documents. This was again refused, and the plaintiffs had therefore no option but to take legal proceedings.

Mr. Witt said the only question was whether the plaintiffs were the real principals.

Mr. Carl Schroeter said he was a member of the plaintiffs' firm, and conducted the business in London. On June 26 Mr. Foxall made him an offer for the pepper in question, and gave him a sold note. He purchased pepper to fulfil the contract. His partnership was dissolved at the end of September, and Messrs. Greeff arranged to wind up the partnership's transactions.

Cross-examined by Mr. Witt: They sold the goodwill of the business to Messrs. Greeff, but not pending contracts. On October 8, 1890, they issued a circular to their clients saying they had disposed of the business to them. He knew that Messrs. Greeff were endeavouring to enforce the contract.

Mr. Witt said he could not further resist the claim.

Mr. Pike then elicited from Mr. Schroeter that on

December 17 the price of pepper had gone down to 7½d. to 7¾d. Mr. Foxall, the broker, also gave similar evidence.

Mr. Witt said his instructions were that the price of pepper had only fallen 1d. per lb., not 2d. He called Mr. Hamilton, a produce-broker, who, however, said he had not got the figure for December 10; he had looked up the price in November, when it was 8d. to 8½d. He knew it had fallen in December.

The arbitration award having been made in December, his lordship ruled that that was the date to be taken into account, and the jury thereupon returned a verdict for 89l. 14s. 6d., for which sum his lordship gave judgment, with costs.



LAWRENCE—ROWLAND.—On June 11, at the English Wesleyan Chapel, Rhyl, by the Rev. J. Judge, George Richard Lawrence, pharmaceutical chemist, Rhyl, to Edith Jane Rowland, of Prestatyn, North Wales, youngest daughter of the late William Rowland, M.R.C.S., of Liverpool.

LESTER—MARTIN.—On June 11, at St. Paul's Church, Camden Square, N.W., Kenneth Lester to Maud, only daughter of T. C. W. Martin, 36 Camden Square, N.W., senior representative of S. Maw, Son & Thompson, 7 to 12 Aldersgate Street, E.C.

MILNE—MACKENZIE.—On June 9, at Banchory-Devenick Parish Church, by the Rev. William Lawrence, Henry Milne, chemist and druggist, Old Aberdeen, to Maggie Elizabeth Walker, eldest daughter of the late James Mackenzie, M.A. B.D., schoolmaster, Oldmeldrum.



ATTON.—On June 2, Mr. John Thomas Atton, chemist and druggist, Tinwell Road, Stamford. Aged 58.

BLYTH.—The death is announced, at Sunderland, of Mr. William James Blyth, chemist, of Holmside, Sunderland, who came from Bedale, Yorkshire, in 1858. He had been, some years ago, churchwarden of Sunderland Parish Church, and a member of the Sunderland Burial Board. The deceased was very much respected. "Blyth's Almanac" was published for twenty years by the deceased.

BRADLEY.—On May 26, Mr. William Bradley, chemist and druggist, Dixon's Green, Dudley. Aged 57.

CHIFNEY.—On June 12, Mr. George Jacob Chifney, chemist and druggist, of Mildenhall, Suffolk. Aged 57.

JONES.—On May 20, Mr. Robert Henry Jones, chemist and druggist, Beacon Lane, Everton, Liverpool. Aged 43.

KAIN.—On June 1, very suddenly, Mr. John Kain, of Lisborn. The deceased was in the firm of Messrs. Alexander Boyd & Co., wholesale druggists, where he served his apprenticeship, and to which he had been recently admitted as a partner. He had been engaged at business on the day of death till mid-day, when he left for dinner. Whilst dining he was suddenly seized with an attack of apoplexy, from which he died shortly afterwards. He leaves a widowed mother and two sisters and three brothers.

PEARCE.—At Wanstead, on June 12, Mr. William Pearce, manufacturing chemist, Bow Common. Aged 82.



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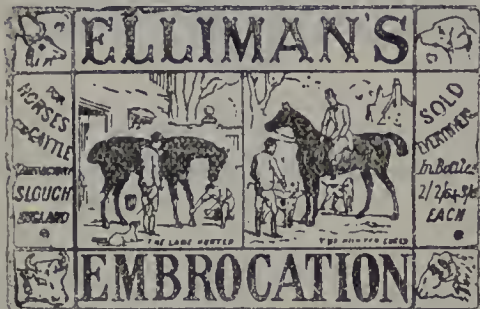
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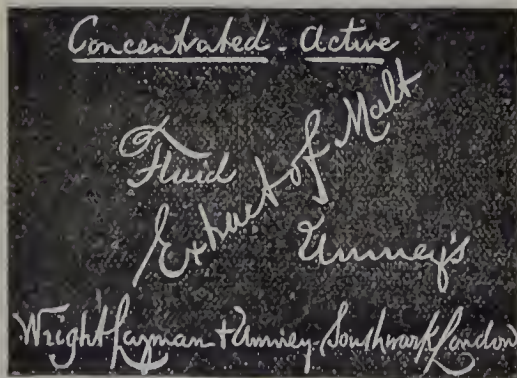


See first page, facing inside of front cover, first issue of the month, for latest particulars.



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THE MEDICAL PRELIMINARY.

WE briefly referred last week to the resolution of the General Medical Council to cease to recognise those pharmaceutical examinations which are at present accepted *pro tanto* in lieu of the Medical Preliminary examination. It will be recollected that last year the council made an alteration in the subjects of the Preliminary examination, the effect of which is to extend the knowledge of geometry to the second and third books of Euclid, and to exclude mechanics as a compulsory subject, and all sciences from the optional subjects. The revised examination comes into force after January 1, 1892. The recent action of the council appears to have arisen from a communication from the Secretary of State for War, wherein "the manifest deficiency in orthography prevalent amongst the young medical officers of the army" was complained of, and hinting that the council might insist upon "a more efficient Preliminary examination of the student before he enters on his medical

The Chemist and Druggist

SUPPLEMENT

Businesses Wanted.
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SATURDAY, JUNE 20, 1891.

Partnerships.
Situations Vacant.
Situations Wanted.
Miscellaneous.

ADVERTISEMENTS for this Supplement can be received on FRIDAY MORNING, first post, though it is requested that these may be sent in as early in the week as possible.

EXCHANGE COLUMN ADVERTISEMENTS will appear on page 10 (bottom folio), and must be received not later than THURSDAY AT NOON, to appear in the next issue.

All Advertisements for this Supplement and Exchange Column must be prepaid. Remittances payable to EDWARD HALSE, and crossed MARTIN'S BANK (LIMITED).

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SURREY.—Retail and Dispensing, with a little Agricultural trade, in centre of pretty market town; handsome pharmacy and good house; returns £700; price £650.

BUCKS.—Light Retail and Dispensing; returns £400; price £250; low rent; good house and garden; worth attention.

HOME COUNTY.—Good-class Dispensing trade, pleasantly situated; good house, &c.; returns £600; price £500.

WEST OF ENGLAND.—Good-class Mixed trade; returns £2,500; low rent; capital premises; price £200 for goodwill and fixtures; the stock at a valuation.

NO CHARGE TO PURCHASERS.

VALUATIONS A SPECIALITY. TERMS ON APPLICATION.

BUSINESSES FOR DISPOSAL—Continued.

A SMALL old-established Chemist's Business in the country; suitable for a young man commencing business. For particulars address "Chemist," care of Evans, Lescher & Webb, 60 Bartholomew Close.

WITHIN 40 miles of London; Country Business; returns £780 to £800; fortnight's trial allowed; good profits; price £750; every opportunity for increasing; investigation courted; no agents; proprietor taking over a larger concern; rent £40. Address, "Scrutiny," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

£100.—A rare opportunity for beginners, qualified or not; a good small Chemist's Business in a main thoroughfare; large population; well fitted and stocked; low rental; good opening for Dentist or Drug Stores; part cash may remain. Bonn rides, apply immediately "Rex," c/o Harrison & Waide, Medical Printers, Hunslet Lane, Leeds.

CHEMIST'S Business for disposal, London; good reasons for selling; every investigation solicited; established over 40 years; returns about £500, all cash trade; good house attached to shop, which is fitted up with solid mahogany fittings; rent £40; stock and fixtures at a valuation. Apply Thompson, Walters, Hole & Co., Limited, Curtain Road, London.

YORKSHIRE.—Returns £1,600; Village trade; about £500 of returns are in Wines, Spirits, Ale, &c.; the net profit £500; to a man not afraid of work, and used to mixed trade, a fortune might be realised in a few years, as present returns can be much increased; illness sole cause of sale; price about £700. Apply to F. J. Brett, Valuer, 60 St. Stephen's Road, Leicester.

WORCESTERSHIRE.—Ready-money Retail, Dispensing, and Prescribing Business; returning £750; double-fronted shop, well fitted, good stock; commodious house with garden; low rent; net profit £300 yearly; books open for inspection, and every investigation to genuine buyers; price £500. "Lavand," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

£325.—Kentish Market Town, about 30 miles from the Metropolis; genuine Retail, Dispensing, and Prescribing Business; returning £700; commanding position in main road; handsomely fitted; good house; from an immediate purchaser £325 will be accepted; satisfactory reasons for selling. T. H. S., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

EXCEPTIONAL bargain, under unusual circumstances; handsomely fitted and well stocked shop, just closed; main leading thoroughfare; has done large business; established many years; everything ready for immediate business; very moderate rent, part let off. Intending purchasers with £100 to £130 (no agents), apply, first instance, "A.," 4 Commercial Road, Pockham, S.E.

CHEMIST and Druggist Business to be disposed of for valid reason; situate in a county town in Scotland; drawing £1,500 per annum, inclusive of an excellent Agency; the business is capable of extension by suitable party; rent £60 to £80 according to accommodation required; suitable lease given and age of transferred; stock and fittings at valuation; goodwill offers received and particulars given. Address, in first instance, No. 328, Keith & Co., Edinburgh.

BRISTOL (City).—Through ill-health genuine Dispensing, Prescribing, Light Retail, returning £500; capable of considerable increase; commanding position, main road; splendid house and premises; handsomely-fitted double-fronted shop; fortune to business man; rent £50; every investigation courted, references given; no agents; lowest cash price £400; only cash purchasers need apply. Address Harrison, Sidney House, Freemantle Road, Eastville, Bristol. N.B.—Shop well stocked, and returns steadily increasing.

SITUATIONS OPEN—Continued.

LOCUM-TENENS for one week, from 11 July. Norris, Chemist, Bradford-on-Avon.

WANTED, an Improver for a Light General Retail and Dispensing business. T. M. Hales, Warrington.

JUNIOR Assistant; comfortable home with short hours, and time for study if required. Full particulars to Freach, Chemist, Sittingbourne.

JUNIOR Assistant, accustomed to good-class Dispensing and Retail. State previous experience, references, salary required, to C. A. Smith, Chemist, Ventnor, I.W.

MESSRS. CHRISTMAS & CO, 818 Holloway Road, N., have a vacancy for a good Junior: time allowed for study. State salary required, experience, &c. Also an Apprentice.

IMMEDIATELY, Junior Assistant, indoors, wanted for good Mixed Chemist's business; must have good character. State full particulars, J. Heru, Leach Street, Monument Road, Birmingham.

WANTED, Junior Assistant for Counter, and putting up of stock; outdoors; liberal progressive salary to good Salesman and neat worker. Apply 5 Railway Approach, Charing Cross.

IMMEDIATELY, Junior Assistant, outdoors; must be quick and business like; hours light. State age and salary required, and send references and photograph, to Nutball & Mason, Pharmaceutical Chemists, Norwieb.

JUNIOR wanted: must be able to Dispense; only one kept; no Sunday duty; salary £30. Send age, height, and how long in the trade, name reference, enclose photo if convenient, C. E. Smart, High Street, Littlehampton.

WANTED, an Assistant, about 21, for Light Retail business. Apply, stating age, experience, and salary required, Leppard, Thames Street, Kingston-on-Thames.

WANTED immediately, a qualified Assistant, one speaking French preferred; outdoors; three kept; liberal progressive salary to smart business man. Apply, personally if possible, between 3 and 4, Hay & Co., 8 Coventry Street, Piccadilly, W.

A GOOD Junior Assistant (indoors), accustomed to good-class Retail and Dispensing business. State age, height, references, experience, salary required, and, if possible, enclose photo (which will be returned), John Clarke, 61 Denmark Road, Manchester.

WANTED, a Junior Assistant, for the Retail Counter; also a competent Dispenser; outdoors. Apply, giving full particulars, D. P. Roberts, Drug and Chemical Store, North End, Croydon.

AT once, an Assistant, of good experience and address; two kept. Please apply, with particulars, either personally or by letter, to W. S. Blackham, 675 Holloway Road, Upper Holloway, N.

WANTED, in four or five weeks, qualified Assistant, gentlemanly and pushing, in good-class Pharmacy; permanency; indoors. H. L., care of Mr. Newcombe, adjoining Post Office, Exeter.

TEMPORARY Assistant (qualified) immediately for a month or six weeks; must be well up in Dispensing and best class of Counter business; high personal character; in house. Particulars, including age, height, and remuneration, to Randall & Son, Southampton.

JUNIOR, aged about 21, abstainer, about July 6; hours 8 till 10, and alternate Sunday evenings; at liberty one evening weekly; no extra time can be spared for study, one only kept. Apply personally, or enclosing card stating age, height, and salary, to Mr. Taplin, 91 Hampstead Road, N.W.

MANCHESTER—Wright & Barnaby, Pharmaceutical Chemists, 223 Oxford Street, next door to the Manchester College of Pharmacy, require an indoor Assistant about 24 years of age; must be a competent Dispenser; state age, height, salary, when at liberty; enclose card. Apply to Mr. Barnaby.

JUNIOR: good all-round man, used to General Mixed business; if knowledge of local Wholesale, and able to Extract, preferred; willing, obliging, and pushing Salesman capable of taking charge during principal's absence. State salary required (in and out doors), with references and full particulars, first letter, to Cuttle, Chemist, Scarborough.

MANAGER (outdoors) for new Branch, Kilburn, N.W., to be opened next week in July; must be well recommended, possessing smart business qualities, and experienced in high-class cash trade. Apply, stating full particulars, enclosing card, to J. H. Lewis' Drug Store, 22 and 24 Great Portland Street, W. Also Dispenser and Junior wanted.

AN active Manager, indoors qualified, age about 35 or 40, to take a responsible situation in a high-class West-end house; must be thoroughly competent as a Salesman and Dispenser; also a gentleman, qualified, and about 25 or 30, as second Assistant. Apply, with full particulars as to experience, age, height, and salary required, to A. B., Messrs. Horner & Sons, Mitre Square, Aldgate, E.C.

WANTED, for July 13, a gentlemanly Assistant, Minor qualification, age about 24, well up in Dispensing; London experience preferred; indoors, comfortable home. Enclose photo, W. R. Howard, 4 Napier Road, Kensington, W.

IMMEDIATELY, a Junior Assistant for Light Retail and Dispensing business; only one kept; abstainer preferred. Please state age, height, salary required, and references to "Ipecac," Messrs. Evans Sons & Co., Hanover Street, Liverpool. Letters not answered in three days declined.

IMPROVER or Junior in Light Retail business; indoors; one only kept; must be industrious, and have good references. Please state full particulars in first letter, age, height, how long in the business, salary required, and enclose card (to be returned), A. Higgs, Chemist, Kingston, S.W.

WANTED, a thoroughly competent Manager (qualified) for a Mixed Country Agricultural, Drug, Oil and Colour business; must be a first-class Prescriber and Dispenser; good references indispensable; one seeking permanency required; liberal salary to a suitable man. Apply, F. W. Bradley, Chemist, Wisbech.

PARISH OF BIRMINGHAM.

ASSISTANT to District Medical Officers as Dispenser.—The Guardians of the Poor will, at their meeting to be held on Wednesday, July 15th, appoint an Assistant to the Medical Officers of this Parish, as Dispenser, who must be capable of making up and dispensing the various Medicines, and filling a requisite entries in the necessary books.

No persons qualified to be appointed Dispenser who shall have been duly registered under the Pharmacy Act of 1853. The Dispenser will be required to devote the whole of his time to the service of the Parish, and to attend at the Dispensary whenever required for the purpose of Dispensing Medicines, and not to accept any other engagement whatever.

Salary for the first year £103. Provided the duties are discharged to the satisfaction of the Guardians, there will be an increase of £10 a year for 5 years until a maximum of £153 is reached.

Canvassing the Guardians will be a disqualification. The Guardians are averse to the principle of superannuation. Applications, stating qualifications, when registered, whether married or single, and age, together with copies of three testimonials of recent date, to be sent to me on or before Wednesday, the 1st day of July.

WALTER BOWEN,
Clerk to the Guardians.

Parish Offices, Birmingham,
June 18, 1891.

SITUATIONS WANTED.

1s. for twelve words; 6d. for every six words beyond.

ASSISTANT; unqualified; 21; 5ft. 7in. Page, 15 St. German's Road Forest Hill.

LOCUM, after 3 P.M.; 5s. 6d.; medallist; experienced; 30. 12 Cairo Road, Walthamstow.

BRANCH Manager; Dispenser; 23; outdoors; Minor; July 3rd. Patrick, Chemist, Harrow.

ASSISTANT; aged 30; Minor qualification. Address, H. E. M., 89 Philip Street, Aston, Birmingham.

A Junior, indoors; age 22; tall; country preferred. "Statim," c/o J. H. Fudge, 23 Triangle, Bristol.

ASSISTANT; first-class experience; good references. "Phenacetin," 30 Trinity Square, London, S.E.

SEASIDE.—To Manage; Dispense, Prescribe; experienced; qualified "Dens," 17 College Street, Sheffield.

ASSISTANT; first-class experience; good references. "Salol," 30 Trinity Square, Borough, London.

A Dispenser to Surgeon or otherwise (29); good references; outdoors. T., 3 Brunswick Row, Brunswick Street, Blackfriars Road.

WHOLESALE.—Traveller or Manager; connection; good references. Address, W. H., 2 Queen's Terrace, Roundhay Road, Leeds.

A Assistant; Minor; aged 24; first-class experience; London, West-end, preferred. Ernest A. Tillman, Harrison Terrace, Truro.

A Manager or Assistant; 13 years' experience Prescribing, Extracting, J. Varrow, care of H. Sykes, Chemist, Moldgreen, Huddersfield.

A Dispenser or Assistant; 12 years' good experience; disengaged. "Chemists," 76 Albert Street, Harrow Road, Westbourne Park.

LOCUM-TENENS, or temporary Assistant; age 28; good references; competent; unqualified. B., 17 Richford Street, Hammersmith, W.

MANAGER, Assistant, or Dispenser; married; 29; height 5 ft. 8 in.; experienced; good references. Hodgson, York House, King's Cross Road.

JUNIOR, son of a chemist, aged 20, requires situation in a good house; 5 years' experience, 62/64, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

SITUATIONS OPEN—Continued.

WANTED, immediately, a competent Assistant; indoors; also Junior about 20. If by letter, state full particulars and enclose photo, to A. R. Keith, Criterion Buildings, Upper Holloway, N.

WANTED, an indoor Assistant, accustomed to good-class trade. State age, height, salary required, when disengaged, also enclose carte, which will be returned, Morgan, Chemist, Southcad-on-Sea.

WANTED, an energetic man to manage a small Retail and Dispensing business; indoors; state age, reference, salary required, with photo. Apply X., Post Office, Borough Road, Birkenhead.

DISPENSER, Minor.—John Barker & Co., Kensington High Street, W., require an indoor Assistant of good experience; close on Saturdays at 2 o'clock; no Sunday duty; personal application preferred.

TRAVELLER.—Wanted, a gentleman to call upon Surgeons only; unexceptionable references required; state age, salary, and previous engagements. Address, Slinger & Son, Wholesale Druggists, York.

EXPERIENCED all-round Chemist (qualified) required for large Store. In applying please give full particulars to "North of England," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

DISPENSER (outdoors) wanted for a town 20 miles from London; hours, 9 till 11 a.m., 3 till 4.30 p.m., 7 till 8.30 p.m. Apply, stating terms, with references, and photo if possible, to Dr. Stirling, Grays, Essex.

WANTED, an Assistant (not under 20) in a small Light Country business, chiefly Dispensing. Address, Barton, Kenilworth, stating reference, salary required, and when disengaged; if carte enclosed it shall be returned.

IMMEDIATELY, an active and qualified indoor Assistant to take part management of a middle-class business; must possess good references. Apply, with full particulars, and stating salary, to J. Hudson, 5 Victoria Street, Grimsby.

WANTED, neat and accurate Dispenser, outdoors, for Lancashire practice; permanency; one able to make an occasional visit preferred. Applications, references, and salary required, to Dr. Hamilton, Chester Square, Ashton-under-Lyne.

WANTED, early in July, a good Junior Assistant, about 22 (indoors) for Dispensing and General Retail; abstainer preferred. Apply, stating age, experience, salary required, and reference, to J. Goodwin, High Road, Lower Clapton, London, N.E.

WANTED Junior Assistant; salary to commence at £35; indoors; increase after three months; one evening a week out, and every other Sunday; a young man just out of his apprenticeship from country not objected to. Apply, Barnard, 309 Hackney Road, London, N.E.

WANTED in Mixed Country business, with considerable amount of good-class Dispensing, a trustworthy Assistant for a permanency; must be qualified; light hours; comfortable home. Full particulars to "Chemist," Messrs. Wright, Layman & Omay, 50 Southwark Street.

WANTED, immediately, experienced Travellers, with good connection, to push a Proprietary Article of daily use; must have good address; liberal commission. Apply, with photo and testimonials, stating age, to 229/20, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

EVENINGS.—A Medical Student, who has been a Chemist or a Dispenser, wanted to give evening assistance in return for comfortable lodging, part board, and small salary; references must bear investigation. Apply, "Chemist," 3 Hilton Terrace, Fulham Road (past Walham Green).

A COMPETENT qualified Assistant, about 25 years of age; one accustomed to Retail and Dispensing, and capable of occasional sole management; hours 7.45 to 8, 4 o'clock Wednesdays, 10 o'clock Saturdays; no Sunday duty. Photo, with full particulars, Edwards, Chemist, Brecon.

QUALIFIED Assistant wanted, capable of managing large quick Retail; must be thoroughly competent, not over 30, and have first-class references; permanent place, with improving prospects, to suitable man. Address, stating salary required, T. R. Jackson, The Stores, Cheltenham.

JUNIOR wanted, who has just completed his apprenticeship, accustomed to Dispensing and the general routine of a Mixed Country business; no oils, colours, or heavy work; indoors; comfortable home; abstainer. Apply, stating salary, and enclosing photo, to Jobison Cripps, Reepham, Norfolk.

LONDON Sundries House requires representative for Wales, Bristol, and west part of South Coast; established connection; Bristol resident preferred; a first-class addition to anyone representing a Drug House. Particulars to S. & Co., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED (Station) Junior or Improver in a Mixed Country business; abstainer preferred; must be a good Counterman; comfortable home; time for study. Please send full particulars, salary required (which must be moderate), photo (to be returned), height, &c., to W. H. Bell, Chemist, Br. well, Somerset.

JUNIOR Assistant for good Retail and Dispensing business. State age, salary, and experience, J. Phillips & Son, Pharmaceutical Chemists, Newport, Mon.

WANTED, qualified Assistant for a Dispensing and Light Retail business. State references and salary required (indoors), J. A., 145 Woodhouse Lane, Leeds.

WANTED, immediately, for Mixed Retail, Dispensing, and Prescribing business, a competent Assistant (indoors). Apply, stating age, references, and salary required, to Y. Llewellyn, Dispensing Chemist, The Triangle, Clevedon.

QUICK and accurate Dispenser wanted at once, with good general knowledge of Family trade, for a Country business; no Sunday duty. Address, with full particulars (outdoors), to "Karl," care of Mr. H. F. Jackson, Old Post Office Place, Liverpool.

TWO Senior Assistants wanted for Branch; must be accustomed to brisk trade; short hours and every encouragement to energetic men; also two Juniors wanted. Apply, stating salary and all particulars, to Parke's Drug Stores, Brixton, London, S.W.

FOR high-class Drug Stores, a gentlemanly Assistant; Minor qualification; an accurate and rapid Dispenser; hours of business 8 A.M. to 8 P.M., Saturdays 10 P.M.; outdoors. Apply, sending references, to Manager, Drug Department, 20 High Street, Bath.

MORRIS & CO. (Limited), Chemists and Druggists, Wimborne, Dorset, require, at once, smart and gentlemanly Assistant or Improver (about 20); Dentistry experience preferred; small salary; good home; time for study; send photo and full particulars.

WANTED, for a Light Retail and Dispensing business, a steady and trustworthy Assistant, about 23; Minor preferred. Apply, stating full particulars, to W. H. Foulkes, Chemist, Gloucester.

WANTED, Branch Manager, married, accustomed to Post Office; live on premises; liberal salary to reliable man; enclose carte and references, stating age. Apply, X. Y. Z., care of Messrs. Clay, Dod & Co., 52 St. Anne Street, Liverpool.

WANTED, at once, a Junior Assistant for Light Retail; one accustomed to Country business preferred; easy hours; comfortable home, and time for study if required. Apply, stating age, salary, &c., A. W. Brooker, Twyford, Berks.

QUALIFIED Assistant for sharp pushing trade; must have first-class references; no Sunday or night duty; weekly half-holiday; if found suitable will be given management of branch business. Address, J. Boot, Boot's Drug Co., Lim., 20 Goose Gate, Nottingham.

ASSISTANT, qualified, to manage branch; indoors; a little Hospital Dispensing daily; £50 and commission 10 per cent. over present returns; comfortable home. Also Assistant from July 20 to end of September. Apply, with carte, to Barry & Phillips, Ealing, W.

AN Assistant, with good experience; capable of managing small Light Dispensing business; not under 25; abstainer, and one who can Extract preferred; indoors; comfortable easy berth; hours 8 to 8; no Sunday duties. Apply with full particulars of age, experience, salary, &c., A. C. Coles, Bournemouth.

AN obliging Assistant for a good business; good references indispensable; also an Assistant (qualified) to manage a small Branch at Wrotham, 10 miles away, with railway station. Apply, stating age, height, salary required, &c., with, if possible, a carte (to be returned), to Corfe, Chemist, Maidstone.

DRUG TRADE.—Clerk wanted, for the invoicing department; must have thorough knowledge of the trade, and have filed a similar position; good writer and correct at figures. Apply by letter, stating age, salary, and last employ, to W., care of Burgoyne, Burbidges, Cyriax, & Farries, Coleman Street, City.

SEASIDE.—A Junior Assistant or quick, intelligent Improver wanted immediately for a good-class Light Retail, with Photographic, Optical, and Scientific Sundries. State full particulars, with height, age, and experience, and salary required (indoors), enclose photo if convenient, Chundler, 58 High Street, Ramsgate.

WANTED, active Assistant (Indoors) for good Mixed business; must be careful Dispenser, and capable of taking charge; two kept, with porter and boy; hours, 8.30 A.M. to 8 P.M., Saturdays 10; no Sunday duty; one evening off. Apply, stating age, height, salary required, and references, Garrott Bros., Newport, Mon.

QUALIFIED Assistant; married preferred; must be industrious and competent; good character indispensable; moderate hours; Sunday duty almost nil. State age, experience, salary required (outdoors), when disengaged, and other necessary particulars, enclose carte (to be returned), J. N., Messrs. Newbery & Sons, King Edward Street, E.C.

WANTED, by a first-class provincial firm, a qualified Assistant as head; he must not be under 28 years of age, and must have good general scientific knowledge, besides which he must be a man of tact and energy; a liberal salary will be paid to a really good man; short hours; no Saturday afternoon, no Sunday work. State age, qualification, and salary required, in first instance, to A. B. C., care of Wm. Sutton & Co., 76 Oldswell Street, London, E.C.

BUSINESSES FOR DISPOSAL—Continued.

TO be disposed of at once through death, a Chemist's Business, well situate in the High Street, Leighton Buzzard, Beds. Apply to "Exor," Coles, Leighton Buzzard, Bedfordshire.

FOR disposal, through illness of proprietor, a Retail and Prescribing Business, taking £400 per annum; capable of great increase. For particulars apply 9 Wellington Street, Strand, London, W.C.

FOR immediate sale, in consequence of death of owner, an old established and lucrative Chemist and Druggist's Business, carried on in Att-cliffe Road, Sheffield. For particulars, apply to Mr. Reoch, Burton Weir Brewery, Sheffield.

GOOD Chemist's business in London; returns over £850; price £750; fine position in thickly populated district; vendor, retiring, is open to offer, and will arrange terms. Would-be purchasers can have full particulars, every investigation, with option of trial, on application to Mr. Burgess, Maw, Son & Thompson, Aldersgate Street.

TO be sold, the 40-years' established Dispensing and Prescribing Druggist and Chemist Business carried on by Mr. Charles Fletcher for the past 16 years at 46 Alfreton Road, Nottingham, and formerly carried on for many years by Mr. Oakland. Apply, Charles Rogers, Chartered Accountant, 22 Low Pavement, Nottingham.

FOR disposal, an old-established Light Retail and Dispensing Business, situated in one of the best positions in Manchester; shop large and well fitted in mahogany, and in a superior residential neighbourhood; excellent stand for Dentist. For particulars, apply Mr. Thomas, 122 Portland Street, Manchester.

£75 Cash; bargain; fittings alone worth more; unopposed; no Chemist near; Dispensing and Prescribing; splendid chance for Dentist, not one near; house with private entrance; well stocked; excellent Proprietaries; double-fronted shop, good mahogany fittings; good reason for disposal; must sell. By letter, "Philocomé," 17 Apple-garth Road, W.

BUSINESSES WANTED.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

ADVERTISER wishes to purchase direct from vendor, without the intervention of agents, a Business in the west or western district of London, making a net profit of not less than £500 per annum; replies will be treated confidentially. W. Roberts, 31 Weltje Road, Ravenscourt Park, W.

WANTED, immediately, a reliable Retail and Dispensing Business (no objection to a little Agricultural trade), returning from £600 to £900; gravel soil preferred; advertiser is now disengaged, and can negotiate at once for a suitable concern. Address, H. I., c/o Kendall & Radley, 47 Great Smith Street, Westminster.

PARTNERSHIPS.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

WANTED, a Partner or a good pushing Assistant; or will sell very cheap a business in one of the most thriving towns in America (about £400 required), owner not having sufficient time. Address, Horrocks, Vancouver, B. C., Canada.

WANTED, at once, an Assistant or Partner of good appearance, who can make business and who must be able to talk well; to one having no objection to attend markets with trap to advertise specialties £3 per week can be easily earned; small capital required. Apply, "Herbert," 508 Kingsland Road, N.

TO LET.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

SHOP to Let.—Good opening for Chemist; plate glass double fronts; good house and garden; last rising neighbourhood; low rent. Apply, E. Boyes, Woburn Sands, Beds.

DRAYTON PARK, Highbury, N.—A splendid opening for a Chemist or Dispensary, a Corner Shop, plate-glass, and a good house; lately been put into thorough repair; side entrance; rent £55; 3 years' agreement and option of lease. Apply, J. Best, 41 Moorgate Street, E.C.

FOR SALE.

CHEMISTS commencing business.—A good opportunity for a Chemist to start at once; the whole of the Stock, Fixtures and Trade Utensils of a going City Business to be sold; must be cleared by 12 o'clock the 23rd inst.; would sell without the stock. Apply from 10 to 6, Bedford, 47 Old Broad Street, E.C., corner of London Wall.

APPRENTICESHIPS.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

APPRENTICE.—John Ekins, 97 High Street, Bedford, has a vacancy for a well educated youth; must have passed the Preliminary exam. or its equivalent; premium required.

CHEMIST'S Apprentice.—Vacancy for well-educated youth; good Dispensing and general business; four employed; comfortable home; moderate premium. Anthony & Bliss, High Street, Bedford, Beds.

APPRENTICE required after July; must have passed Preliminary examination, or its equivalent; time for daily study; full particulars on application. Cleland, Chemist, Leytonstone Road, Leytonstone, N.E.

APPRENTICE, in a good-class Country business, where a well-educated youth would have every opportunity of thoroughly learning his trade; no heavy work; boy kept; moderate premium. T. Fryer Evans, Chemist and Prize Medalist, Flint, N. Wales.

APPRENTICE.—In an old-established Dispensing business, where every opportunity would be given to acquire a thorough knowledge of the business; must have passed Preliminary; premium moderate. Apply to W. Jones, 55 King's Road, Chelsea, S.W.

H. FERRYMAN, Chemist and Stationer, Lindfield, Sussex, requires a steady, gentlemanly youth as Apprentice in a first-class Mixed Country business; comfortable home in healthy locality; short hours, with no Sunday duty; time for study, and only moderate premium required; must have passed Prelim. Exam.

APPRENTICE in a good house of business, London or large town.—A situation is required for a well-educated youth (16, passed Prelim.); a moderate premium will be paid; comfortable home; time for recreation and study, and permission to attend lectures indispensable. All particulars to F., care of H. J. Church, Esq., Pharmaceutical Chemist, Cambridge.

SITUATIONS OPEN.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

WANTED Junior Assistant, outdoors; one used to Country business preferred. Apply, "Homo," 70 Kennington Park Road, S.E.

WANTED, an Assistant to manage a small Chemist business; qualified; single. State age, salary, Mrs. Calcutt, High Street, Marlow.

TRAVELLERS for first-class Perfumery, Toilet Requisites, and Sundries. 34/6J, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

JUNIOR Assistant (indoors), accustomed to good Retail and Dispensing. Apply, stating age, height, experience, and references, to J. Williams, Victoria Road, Aldershot.

ABOUT the end of July, a qualified Assistant; good Counterman. State age, height, salary required, and what experience, to Peacock & Co., Stoke's Croft, Bristol.

PACKER wanted for Druggists' Sundries. Write, stating age, wages expected, and experience, to "Drug," care of Warner Bros. Stationers, Finsbury Pavement.

WANTED, experienced Foreign Assistant, speaking French and German, for West-end business. H. M., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, competent Assistant, with some Continental experience, for West-end business. Address, B. H. F., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WHOLESALE Drug Trade.—Required, an Invoice Clerk. State experience, salary, &c., to "Recess," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

QUALIFIED and competent Assistant (indoors), not under 22, where several are kept. Apply, giving full particulars, and enclosing carte (if possible), to Clay & Abraham, Liverpool.

A QUALIFIED Assistant (indoors); must be competent and trustworthy. Apply, stating age, height, salary required, and enclose photo, Beall & Son, Chemists, Cambridge.

TRAVELLERS wanted in town and country; must have a good connection amongst Chemists; article of easy sale; liberal commission. D. T. 831, Messrs. Deacon's, Leadenhall Street, E.C.

TOWN Traveller, for Sundries; one with connection amongst Stores preferred. Apply, by letter, K., c/o Housekeeper, 82 Bishopsgate Street, E.C., stating experience and salary required.

SITUATIONS WANTED—Continued.

LOCUM or Manager; aged 37; qualified. "Lapis," 9 Wellington Street, Strand.

LOCUM-TENENS (40); qualified. Mr. Baker, 271 High Street, Camden Town, N.W.

JUNIOR (19); first-class business; 3 years' experience; Midlands. Alder, Madeley, Salop.

JUNIOR; aged 22½; 6 years' experience. "Chemicus," 64 Peurose Street, Waltham, S.E.

MANAGER or Senior; 29; Minor; single; experienced; English. "Chemist," 20 High Street, Brecon.

ASSISTANT, unqualified; tall; 8 years' experience. Grace, 83 Edward Street, Burslem, Staffs.

AS Junior in good business; tall; good experience; disengaged. Hanson, Cr ssington, Liverpool.

IMPROVER or Junior; age 18; £20; good Counterman. James Butler, Mr. Smart, Littlehampton.

WHOLESALE in any responsible position; first-class experience; age 34; town or country. C., 88 Bland Road, S.W.

LOCUM-TENENS; qualified; 50; disengaged; active; single. "Oenprier," Lullington Lodge, Harbury, Leamington.

LOCUM-TENENS; qualified; Extractor; abstainer; experienced; reference. "Minor," Knowles, Chemist, Sutton, Surrey.

LOCUM-TENENS during absence; long experience; gentlemanly address; moderate terms. "Ph. Ch.," 33 Fowls Square, W.

ASSISTANT or Dispenser; married, no family; 13 years' varied experience; Hall diploma; highest references. "Chemicus," 63 Wharf Street, Burslem.

MIDLANDS.—Branch Manager; good Dispenser, Prescriber, and Tooth-extractor; 28; married; highest references. "Drugs," Norfolk House, Lower Clapton.

ASSISTANT; age 21; for one, two, or three days weekly; Dispensing or Retail; good experience; first-class references. Apply, P., c/o Mr. McKnight, 290 Euston Road, N.W.

AS Junior in busy town; indoors; 3½ years' experience; aged 19; tall; disengaged second week in July. P., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

LOCUM-TENENS and Temporary Manager; country preferred; qualified; steady and reliable; highest references; disengaged. "Extractor," 23 Florence Road, London, S.E.

WANTED, engagement, temporary; Manager or otherwise; testimonials of highest merit; varied experience; middle age. "Reliable," 102 Brynard Road, Peckham, London, S.E.

INDIA or Colonies.—Certificated Pharmaceutical Chemist, aged 28, speaking English and German, desires appointment by September. Address, Lewis Erdelyi, Trenesin-Teplicz, Hungary.

WANTED by good Dispenser (30); 15 years' experience; disengaged till 2 P.M. and after 6; to Surgeon or Chemist, London; outdoors; good references. Apply, T. C., 61 Geneva Road, Brixton.

LOCUM; qualified; abstainer; non-smoker; good testimonials; 13 years' experience; Dispensing and Retail; London or provinces; disengaged. Hinde, 54 Ivanhoe Road, Denmark Park, S.E.

DRUG-STORE Assistant, unqualified, desires re-engagement (town or suburbs); quick and industrious; experienced in making pills, powders, ointments, &c. "Chemist," 60 Mervan Road Brixton, S.W.

BRANCH Manager (Minor); married, no family; 12 years' varied experience; abstainer; Leicester, Liverpool, or Manchester preferred; permanency. "Coca," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, engagement as Manager, Locum-tenens or Assistant; a seaside business preferred; qualified, experienced, good Prescriber and Extractor; would purchase suitable business. Address, "Chemicus," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

AN experienced, qualified Chemist (also registered Dentist) desires an appointment, where the duties would give some outdoor work preferred, in the Wholesale; to take charge of literary department; some ventilation requiring mental activity with general industry; or a good Managership in the Retail would be gladly entertained, aged 39; married, with family; highest references; permanency desired. Redfern, Cobham, Surrey.

MISCELLANEOUS.

Special charges are made for Advertisements under this heading, which can be obtained on application.

EVERY Chemist should keep it.—ZONA, 1s. A perfect Oceanic Belt for Ladies; no safety pin, button, or buckle; unrivalled for comfort and safety; usual discount; samples sent post free on receipt of 1s. Zona Co., 100 Charing Cross Road, London.

TO Pill Manufacturers who wish to sugar-coat their own.—A splendid opportunity is offered by advertiser, who is retiring from the business; purchaser of the sugar-coating machinery will receive instructions how to do the work. Apply, at once, name and address, to A. Z. H., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

A WELL-KNOWN Drug house, intending shortly to send out two travellers, for six months, to the Cape and to India, desires to find two other good firms to co-operate and share expenses, either for one or both countries. "Amigdalinum," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

MECHANICAL DENTISTRY executed for the profession by a Dentist having a staff and all modern appliances at command; in gold, dental alloy, or vulcanite; terms strictly moderate; repairs returned same day as received; lessons given in Operative and Mechanical Dentistry. Address, "Dens," c/o Carter, 12 Marina, Ramsgate.

PURSUANT to an Order of the Chancery Division of the High Court of Justice, made in the matter of the Estate of Alfred Reginald Fresson, deceased, Fresson v. Fresson and another 1890, F. 1522, the creditors of Alfred Reginald Fresson, late of 30 Queen Street, Burslem, in the County of Stafford, Chemist and Druggist, who died in or about the month of December, 1883, are on or before the 10th July, 1891, to send by post prepaid to John Garrett Morten, of the firm of Morten, Cutler, & Co., of 99 Newgate Street, in the City of London, Solicitors for the defunct, Lizzie Fresson, one of the Executors of the deceased, their christian and surnames, addresses and descriptions, the full particulars of their claims, a statement of their accounts, and the nature of the securities (if any) held by them, or in default thereof they will be peremptorily excluded from the benefit of the said order.

Every creditor holding any security is to produce the same before Mr. Justice North, at his chambers, the Royal Courts of Justice, London, on the 24th July, 1891, at 12 o'clock at noon, being the time appointed for adjudication on the claims.

Dated this 4th June, 1891.

MORTEN, CUTLER & CO.,
99 Newgate Street, London,
Solicitors for the said Lizzie Fresson.

PRELIMINARY AND MINOR.

STUDENTS! If you wish to prepare for Examination easily and thoroughly, without leaving business or expending time and money on "correspondence systems" (?), write to Mr. Filkins, Chemist, Crowboro' Cross, Tunbridge Wells, for "How to Prepare for Exams.," gratis and post free. Success guaranteed. No Fee.

PRELIMINARY AND MINOR.

TULLY'S method of preparation is without equal; send for particulars. Knotty Points in Latin Grammar, 1s. 6d.; Caesar Simplified, 1s.; Metric System Simplified, 1s.; How to Write an Essay, 3d.; Equations Simplified, 1s.; Student's Herbarium, 100 specimens, 7s. 6d., post free Mr. J. Tully (Hill's Prizeman), Chemist, Hastings.

LONDON AND LANCASHIRE
FIRE INSURANCE COMPANY.

Head Offices { 45 DALE STREET, LIVERPOOL.
74 KING WILLIAM STREET, LONDON.

Annual Income, £702,000.

Funds in Hand, £807,000.

Premiums Moderate. Losses settled with promptitude and liberality.

Applications for Agencies specially invited from Chemists and Druggists in both Town and Country Districts.

READ AND USE

THE ART OF DISPENSING. Price 3s. 6d.

ALPE'S HANDY BOOK OF MEDICINE STAMP DUTY. Price 2s. 6d.

PROCTOR'S MANUAL OF PHARMACEUTICAL TESTING.

Price 2s. 6d.

VETERINARY COUNTER PRACTICE. Price 3s. 6d.

Published at the Office of THE CHEMIST AND DRUGGIST,
42 Cannon Street, E.C.

career." The matter was referred to the Education Committee with instructions (1) to consider the War Office communication; (2) to revise the list of Preliminary examinations recognised by the council; and (3) to consider the advisability or otherwise of taking physics as a pre-curriculum subject. We may dispose of the first and third instructions in a few sentences. The committee did not approve of the suggestion regarding physics. As to the War Office communication they suggested, and the council substantially approved that the army medical authorities be asked to give the council the names of candidates who manifest defect in spelling, so that the council may find out the Preliminary examination under which such candidates were registered as medical students. The second instruction was the most formidable one, and it at once led the committee to consider the regulation which permits the subjects of the Preliminary examination to be passed at one or more examinations. This regulation has fostered the habit of ante-dating amongst medical students, and this the committee considered a great evil. The "ante-dating" medical student is the analogue of the pharmaceutical student who passes his Preliminary examination while engaged at the counter and in the laboratory. A medical student may have commenced his professional studies, say, in October, 1890, but he does not finish his Preliminary examination until April, 1891, so that he could not be registered as a medical student until the latter date. Now, as a year from that must elapse before he can enter for the first professional examination, it is obvious that six months of his time would be lost, so the council has provided a remedy in allowing registration to date from a time which will suit the student—that is, the commencement of his medical studies or thereafter as the case may be. The committee recommended an effectual means for stopping this—viz., that no certificate of pass in Preliminary examination be accepted in future unless the whole of the subjects be passed at the same time. The subjects referred to are English, Latin, mathematics (arithmetic, algebra, and Euclid) and one optional subject. With this resolution the list of examinations accepted by the council was necessarily pared down considerably. The effect of the recommendations so far is significant and gratifying, for the council strongly enforces thereby the necessity of students having finished their general education before commencing their professional studies.

The committee were more exclusive in regard to the list of Preliminary examinations than the council itself. They resolved that it was not desirable to continue to recognise examinations in general education conducted by or through professional bodies in view of the ample provision made for such examinations by educational bodies in addition to the universities. This is a sound principle, and if it had been adopted it would practically have meant that only the following certificates would be recognised—namely, degrees in arts, local and matriculation examinations of universities, College of Preceptors, Educational Institute of Scotland, the Scotch Education Department, and the Intermediate Education Board of Ireland, as well as some foreign certificates. The council, however, dealt more gently with the medical licensing bodies, and resolved to ask the following to discontinue their Preliminary examinations:—Apothecaries' Society of London; Royal College of Physicians and Surgeons, Edinburgh; Faculty of Physicians and Surgeons, Glasgow; and the Royal College of Physicians and Surgeons in Ireland. The London colleges no longer conduct a Preliminary examination. In future the Preliminary examinations of the various Irish medical colleges will not be recognised, nor will the pharmaceutical certificates. The council has agreed that the new regulations shall not apply

to those who, previous to January 1, 1892, have passed a part of any of the Preliminary examinations recognised by the council, but this, we take it, will only apply to those examinations which are left on the list; so that in future there is no substantial connecting-link between medicine and pharmacy.

SEIDLITZ POWDERS.

THE prosecution of a firm of grocers at Glasgow, under the Sale of Food and Drugs Act, for the sale of a compound under the title of seidlitz powders differing from the article usually supplied under that designation, left unsettled one or two points of interest to chemists. The mixture substituted for the usual Rochelle salts and bicarbonate of soda in the case prosecuted was so unusual that, except as showing that there is some limit to the latitude of interpretation which the law allows to the fancy term "seidlitz powders," the decision offers but little general guidance.

Several chemists have consequently written to us asking what is the present legal position in regard to seidlitz powders, and whether the exact proportions and quantity specified in the "B.P. Additions, 1890" must henceforth be sold. We have alluded to the subject several times previously, but it may be convenient now to summarise matters.

A few years ago the Sheffield stipendiary magistrate ruled that "paregoric" might mean anything soothing, from gin-and-water upwards, and that "tincture of opium" need not be of Pharmacopœia strength unless expressly asked for as such. His decision was appealed against, and when the undefended case came before the High Court, the Lord Chief Justice and another judge reversed the judgment—not because they attributed an invariable standard authority to the British Pharmacopœia, but because in the case before them such evidence as was adduced went to show that when paregoric or tincture of opium was asked for, it was the custom of the trade to supply certain preparations defined in the Pharmacopœia.

In 1889, for the first time, the Bow Street magistrate decided, in a case under the Sale of Food and Drugs Act, that the Pharmacopœia authority was paramount. He found that the term "sal volatile" had been applied to a new preparation in the 1885 Pharmacopœia, and that it was therefore illegal to sell under that title the preparation which was "sal volatile" previous to that date. Since this ruling it has been generally accepted that titles and synonyms appearing in the British Pharmacopœia are to be regarded as authoritative—that the Pharmacopœia is, in fact, a legal standard. There is no Act of Parliament which gives it this authority, except as regards physicians' prescriptions, which the Pharmacy Act of 1868 requires shall be compounded in accordance with the Pharmacopœia in force at the time. The Food and Drugs Act does not mention the Pharmacopœia; and, though in its first draft a clause declaring the authority of the work appeared, this was never enacted.

So that notwithstanding the unquestionably high legal reputation of Mr. Vaughan, the Bow Street magistrate, it cannot be said that the legal authority of the British Pharmacopœia in regard to all medicines sold by retail is conclusively established.

Now to apply this review to the seidlitz powder question. In the Additions for 1890, a formula was introduced for "Pulvis sodæ tartaratis effervescens," and in a foot-note it was stated that "effervescent tartarated soda powder" is commonly known as "seidlitz powder." Has this foot-note the same value as a synonym? We should think it has, and

that if Mr. Vaughan's law is correct, seidlitz powders, by whomsoever sold, must be of exactly the composition and weight set forth in the Additions. Whether this be so or not, it is certain that in any seidlitz-powder prosecution under the Food and Drugs Act that little foot-note, expressing as it does the opinion of a highly placed official body, must carry great weight as evidence. So that chemists will be wise to conform exactly with the formula unless they think they have such grounds for departing from it as would outweigh the instructions of the General Medical Council.

It is this legal authority of the Pharmacopœia which gives to chemists almost a claim to representation on the Pharmacopœia Committee. So long as the Pharmacopœia is merely a physicians' formulary, chemists are not justified in demanding any voice in its compilation. But if it is to regulate the strength and composition of any number of articles of everyday sale, shifting these from time to time, and making it penal to sell this year what it was obligatory to sell last year under a certain name, the right of retailers of such goods must be recognised.

ADVERTISERS AND THE STICKING-POINT.

Two of the ablest of the athletes in the advertising world have been discussing in our correspondence pages an alleged phenomenon in experience respecting which very few people indeed can claim the right of a personal opinion. On May 30 we quoted from an article which Mr. John Morgan Richards had contributed to an American paper, in which he commented on the "still unanswered problem among all advertisers" of what he afterwards called "the sticking-point." Mr. Richards alleged that there is in all cases some point at which sales stop without growing larger, and beyond which no amount of advertising will raise them, and he ingeniously illustrated this theory by quoting analogies from other spheres of interest. A popular preacher, for instance, can crowd a building capable of holding 3,000 people, but give him a church of twice the capacity and he will only half fill it. Three thousand hearers is his limit. And a similar observation, according to Mr. Richards, would hold good in regard to a popular play.

This is curious, if correct. We do not know what proof can be offered of the soundness of the analogies quoted, but the theory, as far as it concerned advertising, was challenged in our next issue (June 6) by Mr. W. E. Geddes, the well-known representative in London of the firm which has so successfully brought St. Jacobs Oil before the public of both hemispheres. Mr. Geddes intimated that he did not believe in "the sticking-point" assumed by Mr. Richards. When growth stops, we understand him to say, the advertiser should look at his advertisements, improve the mediums, change the style, stir up his originality if he have any, or imitate the best models if he have none. We published Mr. Richards's reply to this letter last week, and Mr. Geddes's rejoinder appears in this issue, and we expect that few persons interested in the medicine-trade have missed reading these communications.

We venture to think that the point at issue—the sticking point—is a comparatively minor matter. We conclude that it would be difficult to define exactly wherein the two experts differ, and we are confident that each would recognise some force in the contention of the other. But the ground plan of their discussion is one which interests us all. For good or for evil, advertising is the characteristic feature of this half of our century. It is the right hand of modern commerce; it has established modern journalism. It is a science and an art, and an industry in which millions are invested;

and yet its theory and practice are less discussed and less understood than the stupidest calculations concerning the variations of a pack of cards. We welcome any signs of conference between advertisers, and we are inclined to hope that this pleasant little round between two authorities like Messrs. Geddes and Richards will only introduce a general parley.

It happens, curiously enough, that the drug-trade, which cannot claim to be in the front rank of the industries of the world, is the foremost contributor to general advertising. Physic, which our ancestors used to say could not be pushed beyond the point of absolute necessity, is now the typical subject of advertisements. Many people think there is nothing so easy as to "invent" a pill, advertise it, make a fortune, and live happy ever afterwards. They have little notion of the skill, judgment, anxiety, and speculation involved in any such enterprise. They note the one or two great successes; they know nothing of the many failures which are concurrent with these. Are there any laws which govern advertising results? Mr. Geddes tells us with unkind candour that if he knew, or thought he knew, of a certain method of successful advertising, he would not make it generally available to his competitors, by means of this journal. Such revelations we must not expect, but a general consensus of expert opinion would be of undoubted value, even if it fell short of declaring an infallible system.

The skilful advertiser has to keep his finger on the pulse of the public, and detect how his doses of printers' ink affect its beats. If he adopt a style of advertising which does not happen to hit, he has to suffer pretty smartly for it. He has to pick his mediums from a swarm, many of which are floated with perhaps an assurance that he and one or two others can be relied upon to keep their heads out of the water. He will get extraordinary figures and reckless statements as to circulation put before him, which he can only check by the exercise of his common sense; and he may depend on being cheated by a certain proportion of the papers he patronises. If he is addressing the million, he must not pitch the tone of his advertisements too high; if culture is needed to understand them, he may rely on a very limited proportion of customers. On the other hand, he must not be vulgar: that is always resented by the majority. A population hardened to advertisements needs to be addressed in different style to that adopted on a virgin soil. An advertisement is effective in Russia or Turkey which would be next to valueless here. Mr. Holloway's early productions hit the mark exactly. He gave an alphabetical list of diseases for which his medicines were recommended. Readers found their own complaint in the list, and bought accordingly. Perhaps that system would be a failure now.

These are illustrations of the uncertainties attending the practice of advertising; and for men who spend thousands on the faith of their opinions it is desirable to eliminate uncertainties as far as possible. Is a congress of advertisers an impossible dream?

COMMENTARY.

THE MILAN CONGRESS AGAIN.—We thought we had heard the last of the Milan International Pharmaceutical Congress, but the Italian pharmacists appear determined to keep its ghost stirring about. From the "Comitato Organizzatore," a circular, dated May 15, 1891, has just reached us, in which the whole gamut of the difficulties and

disappointments that beset the well-meant efforts of the committee is touched again. The communication winds up with the comforting assurance that the convocation of the congress has been postponed to a more opportune moment, and an expression of thanks to the thirty pharmacists and scientists who, out of 25,000 to whom circulars have been addressed, had signified their intention to co-operate in the realisation of the congress.

GROGGING.—The question which Mr. Bigwood, M.P., put to the Secretary to the Treasury on Monday refers to a serious leakage in the spirit revenue, which is generally collected with such unvarying stringency. Authorised methylators buy bonded spirit in 100-gallon casks. When these have been emptied into the methylating-vat their market value is considerably higher than that of empty casks merely. On the average each of these casks can be made to yield about a couple of gallons of proof spirit, and it is an understood thing in the trade that no small proportion of this "grogged" spirit gets into the stocks of spirit rectifiers and dealers without paying the 10s. 6d. duty. If Mr. Bigwood's suggestion is correct, that the Excise authorities allege that they cannot prevent this practice under the law as it now stands, we may expect an early demand for further powers. It is obviously demoralising and unfair that it should be possible for practices to exist which have the same effect as defrauding the revenue, but which cannot be prevented or punished.

THE "DROPPED" PHARMACY BILL.—Mr. Storrar, who is a member of the Pharmaceutical Council, and should be therefore "in the know," assured the eleven gentlemen who represented the North British Branch of the Pharmaceutical Society at their annual meeting at Edinburgh on Wednesday that the melancholy little Bill, whose abandonment we announced last week, will be re-introduced next year. It may seem to a small section of the Pharmaceutical Society heroic thus to persevere with the measure after six failures, but to those who look at things from other than a sentimental point of view there is something rather ludicrous in the contrast between the tall talk out of Parliament and the miserable little squeaks in the House which are all the results of so much deliberation and eloquence. Mr. Storrar asks for the next effort at legislation the hearty support of his little audience at Edinburgh; but if he cares also for the assistance of the somewhat larger constituency outside, he will advocate some more attentive consideration of their wants and wishes than was accorded last year.

JUBILEE LOGIC.—That fluent pharmacist, Mr. Henry Long, reports himself to be in the condition of Curran's client, who did not know how much he was injured till he heard Curran put his case to the jury. Until Mr. Long read the Jubilee number of the *Pharmaceutical Journal* he "had no idea of the extent to which our Society" (including Mr. Long) "was loved and venerated throughout the whole civilised world." Then Mr. Long becomes a little vague. "Here at least," he adds, "I find what the Society has done for me, in giving me the high honour and privilege of being one of its 5,000 members of all grades. This is a nut for the outsiders to crack, especially as, according to their version, the Society has always been hopelessly wrong." We do not know who are the outsiders who consider that the Society has always been hopelessly wrong, nor can we make out what is the nut offered for them to crack. We are inclined to think that perhaps Mr. Long means exactly what he says, and that the puzzle is to find what the Society has done for him. But there is no prize offered for the solution, and the nut is a hard one.

A PROPER TOPIC.—A correspondent of the *British Medical Journal* suggests that the subject of the dispensing of medicine by medical practitioners might with advantage be discussed at the coming meeting of the British Medical Association at Bournemouth. The real question to decide, says the writer, is whether it is for public advantage or not that the dispensing of remedies should be in the hands of the doctor or the chemist. Possibly, in large centres of population, the division of labour would be an advantage. The chemist, he thinks, "is doing more prescribing than he used to do. Whether this is for the public good is questionable. It is the result, however, of doctors not dispensing, and should be taken into account in discussing the question; for it is not probable that the pharmaceutical chemist will assist in having an Act of Parliament passed to deter him from doing prescribing business." We are inclined to think the problem is a little more complicated than this gentleman considers it. Each of the three parties—prescribers, dispensers, and public—want to secure a benefit. How is this to be arranged? How can the public be physicked at present rates, with a new and satisfactory payment to the chemist, and no diminution in the income of the doctor? It is not easy to find a means which will satisfy all parties; but at any rate the subject is one which we should be glad to see the association admit to discussion.

FARADAY CENTENARY.—There was a brilliant assemblage at the Lecture Theatre of the Royal Institution, Albemarle Street, W., on Wednesday afternoon, when the Prince of Wales presided at the first of the lectures appointed in honour of the centenary of the birth of Faraday. In introducing Lord Rayleigh, the lecturer, the chairman made a pretty little speech, in which he spoke from personal experience of the lucidity of Faraday's style in lecturing, he and the Duke of Edinburgh having as boys attended Faraday's Christmas lectures in the Royal Institution. Lord Rayleigh's lecture dealt at the commencement with Faraday's connection with the institution and the influence which contact with Sir Humphry Davy had upon him. He then proceeded to recall some of Faraday's greatest achievements, dealing especially with electro-magnetism, and illustrating what he said experimentally. The feature of the experiments was that they were performed, as far as possible, with such apparatus as Faraday had at his disposal when they were originally made. The experiments included those which prove the induction of electricity, the propagation of energy across intervening space by means of dielectric rings, the magnetisation of a ray of light, and others, which he fully explained to the delight of the audience. The vote of thanks to Lord Rayleigh was moved by Sir W. Thomson, P.R.S. The Prince of Wales then presented diplomas awarded to new honorary members, viz.:—MM. Berthelot, A. Cornu, Mascart, Louis Pasteur; Professor Bunsen, of Heidelberg; Professors von Helmholtz, von Hoffmann, and Virchow, of Berlin; Professors J. P. Cooke, Dana, and Simon Newcomb, of the United States; Professors Canizzarro and Tacchini, of Rome; Professor Thomsen, of Copenhagen; Professor Thalen, of Upsala; Professor Mendeleeff, of St. Petersburg; Professor Marignac, of Geneva; and Professor Van der Waals, of Amsterdam. The Duke of Northumberland (President of the institution), in proposing a vote of thanks to the chairman, read two letters from the Prince of Wales—one to Faraday, written in 1856, thanking him for the "advantage he had derived from attending his most interesting lectures"; and the other written to Mrs. Faraday in 1867, condoling with her on the death of her husband. Sir W. Grove seconded the resolution, and explained that, having been asked to second a vote of thanks, and being somewhat deaf, he had thought that it was a vote of thanks

to the lecturer. He then went on to deliver an amusing little impromptu discourse upon the disadvantages of old age. He was possibly, he said, the only one in the room who had known Faraday in his prime. He wished they had been celebrating the centenary with Faraday alive. The chairman having acknowledged the resolution, the proceedings terminated, nearly all adjourning to the library, where there was a collection of objects in connection with the Faraday centenary, among them his desk, and many articles and books which he had used, and also the letters of the Prince of Wales, mentioned above. His Royal Highness spent some time in this room, inspecting the objects of interest, in company with Professor Dewar, before leaving.

THE "PROFESSIONAL SENSE."

It is seldom that the General Medical Council, in its efforts to maintain the purity of the Dental and Medical Registers, has the assistance of royalty, but there was an instance at the recent meeting of the council. There are few in the drug-trade who have not heard of Mr. Henry Louis Goodman, the Ludgate Hill dentist. He has a large local practice, and through his advertisements in provincial papers his professional services are sought by "country cousins" also. In his advertisements, Mr. Goodman styled himself "surgeon-dentist to the Queen's household" and "surgeon-dentist to the households of Her Majesty the Queen and H.R.H. the Prince of Wales." As Mr. Goodman holds no appointment of the kind, the Lord Chamberlain wrote to him in January, 1890, asking him to discontinue the use of the designation; but as Mr. Goodman stated that he "had the honour of attending professionally to many members of Her Majesty's household at Buckingham Palace and Windsor," he did not discontinue. The Lord Chamberlain could not legally prevent it, so in June, 1890, he called the attention of the Medical Council to the matter. On June 17, 1890, Mr. Goodman was informed by the solicitor to the Medical Council that his conduct rendered him liable to be brought before the council under the Dentists Act. Mr. Goodman still continued his advertisements, and on April 1 of this year the Lord Chamberlain again wrote to the Medical Council about the matter. The Comptroller of the Prince of Wales's household also stepped in on April 3, asking the council to take steps. The whole matter was considered by the Dental Committee of the council on May 25, when Mr. Goodman attended. Various questions were put to him, which he answered in defence of his conduct, and the matter was reported to the meeting of the council held on May 29. Mr. Goodman again attended, and the President having asked him if he considered that he had any claim to the title of "surgeon-dentist to the households of Her Majesty the Queen and His Royal Highness the Prince of Wales," he replied that he was prepared to pledge himself not to use any such title in future. The council considered the case *in camera*, and, on resuming, passed the following resolution:—

That Henry Louis Goodman, having admitted that he had improperly used the title of Surgeon-Dentist to the Households of Her Majesty the Queen and His Royal Highness the Prince of Wales, and having undertaken that he will not continue this practice for the future, be admonished by the President in the name of the Council, but that his name be not removed from the *Dentists Register*.

The matter thus ended.

Mr. Henry Francis Partridge, of 76 Sturndale Road, West Kensington, whose name the council removed from the register, issued a writ against the council and its registrar in February for restitution of his name to the Dentists' Register, and claiming 10,000% damages for wrongful removal therefrom.

While a medical man may keep open shop as a chemist, it does not follow that as a chemist he can do what as a doctor he might not do. That this is so was shown by the case of Mr. Lawrence John Baptist Paul Fernandez, L.S.A.,

L.R.C.P. & S. Edinburgh, who was the proprietor of the firm of Lawrence & Co., chemists, Calcutta. A complaint was lodged with the council against Mr. Fernandez as the alleged author of a pamphlet of advertisements entitled the "Manufacturing Chemist," and issued by "Lawrence & Co., Licentiates Society of Apothecaries London, Surgeons and Manufacturing Chemists (London and Edinburgh), 35 Wellington Street, Calcutta." The council referred the matter to the bodies who licensed Mr. Fernandez. The Royal College of Surgeons, Edinburgh, considered the pamphlet as "highly objectionable and of a very unprofessional character," and so informed him. The Apothecaries' Society also complained to him, the result being that in January Mr. Fernandez sold the business to Mr. A. J. West. This brought the matter to a satisfactory termination.

Mr. Samuel Kennedy, F.R.C.S. Edinburgh, of 22 George Street, Hanover Square, W., and his son, Mr. S. A. S. Kennedy, L.R.C.P. & S. Edin., are supporters of the Mattei system, have earned the opprobrium of the Medical Defence Union. Mr. Samuel Kennedy wrote an article on the Mattei system in the *National Review* last year, and according to the Medical Defence Union he and his son "appear to be the only qualified medical practitioners who practise with these quack remedies, and are reported to reap a golden harvest from their monopoly." The matter has been brought under the notice of the Medical Council, who have transferred its consideration meantime to the Royal College of Physicians and Surgeons Edinburgh. The issue will be interesting, for more doctors than the Kennedys have now joined the Mattei ranks.

Trade Notes.

MESSRS. CHRISTY & Co. inform us that their kola preparations have been awarded a gold medal at the Jamaica Exhibition.

MESSRS. VOGT, HERBST & Co., wholesale dealers in drugs and chemicals, have removed from 27-28 Jewry Street to 6 Rood Lane, E.C.

MR. H. E. NOBLE, chemist, Peterborough, has removed from No. 1 to No. 2 Medgate Buildings, which premises have been fitted in first-class style.

MR. GARDNER's patent rapid sifting and mixing machines will be shown at the Royal Agricultural Show at Doncaster next week at Stand 237.

THE UPJOHN PILL AND GRANULE COMPANY are erecting new works at Kalamazoo, Mich., which when completed will give them more than three times their present available accommodation.

BARGAINS are offered this week by Messrs. Shirley Bros. who in future are to devote themselves more closely to manufactured goods and A1 brand preparations. Consequently they wish to clear their stock of cut glass goods, such as smelling-bottles and spray-producers, and they invite the assistance of the trade in a tempting manner.

AT the annual general meeting of shareholders in the Pharmacie Centrale de France, held in Paris last month, a dividend of 6 per cent. was declared as the result of the operations of the company during 1890. The net profits have been 836,231f. 10c., of which 53,684f. 55c. are carried to new account.

MESSRS. SHIRLEY BROS., 55 Farringdon Street, E.C., inform us that they have offered the "Excelsior Automatic Disinfectant," described last week, for some years—indeed, they registered the oblong design on November 22, 1888. In justice to the firm mentioned in the former note, we may say that they have two designs—one like Messrs. Shirley's, and another circular, with the face of a clock printed upon it.

THE ship *D. H. Morris*, of 1,100 tons register, has just been cleared for New York, carrying a full cargo of 6,500 packages of chemicals for account of Messrs. Schoellkopf, Hartford & MacLagan (Limited), of New York, and the Italian barque *Eurico* s., of 700 tons, is about to follow, chartered to the same firm with a similar cargo. The vessels are chartered by Messrs. Samuel Lambert & Co., of Fenchurch Street, E.C.

Pharmaceutical Society of Great Britain.

ANNUAL MEETING OF THE NORTH BRITISH BRANCH.

THE annual meeting of the members and associates-in-business of the Society residing in Scotland was held at 36 York Place, Edinburgh, on Wednesday. This meeting is called for the purpose of electing the executive for the year; but a time-honoured custom is kept up by placing before the members a report of the previous year's business. This duty falls to the chairman. Accordingly, on Wednesday, in the absence of Mr. William Gilmour, F.R.S.E., the chairman of the executive, whose place was taken by Mr. Storrar, besides whom there were eleven present, Mr. J. R. Hill, assistant secretary, read

THE ANNUAL ADDRESS,

which Mr. Gilmour had prepared. In this he said that the past year, like most years, contained light and shade, encouragement and discouragement; but it was pleasant to note that the former largely predominated. For example, there was an increase of chemists in Scotland this year connected with the Society—not a large increase (308, as compared with 300 last year), but still an increase which placed the record the highest yet attained in Scotland. He hoped the number would never go below this in future, but that it would rapidly increase until the Society represented the majority of the drug-trade. If the proposals for the consolidation of the Society contained in the Pharmacy Bill now before Parliament should become statute law, there was every reason to expect that they would tend to facilitate this very desirable end. He then referred to the fact that only 30 per cent. of the trade is connected with the Society, and argued that there should be a greater representation, as the Society is just what the trade makes it. Commenting upon the large number of nominations for the executive, he took this as gratifying evidence of increased interest in the welfare of the Society, and of a higher appreciation of its efforts in promoting the general interests of pharmacy. It might be said that there was not much work for the executive to do. This is true in a certain sense; but the executive had no reason to be ashamed of what it had done, and the Council of the Society had repeatedly acknowledged its indebtedness for the way in which the business of the Society in Scotland was conducted. It had further to be remembered that no one could foretell what questions might arise, and it was of the utmost importance to have an elected body representing Scottish opinion on pharmaceutical matters, and always ready to assist and co-operate with the Council in dealing with any such affairs. He observed with satisfaction that, of the twenty-nine nominees for the executive, about two-thirds were resident outside Edinburgh. While it was an advantage to have a considerable number of Edinburgh men on the executive, it was also most desirable that it should as fully as possible represent the whole of Scotland. Speaking of the

EXAMINATIONS

Mr. Gilmour said that along with the increase in the number of candidates there was an improvement in the percentage of passes. The increased number of candidates was doubtless due in some measure to a higher appreciation of the necessity of legal qualification and an increased demand for qualified assistants. The extended and much more definite schedules for the Minor and Major examinations recently issued, although not yet in force, had doubtless made the student more clearly and definitely acquainted with the character and scope of the knowledge required, and this probably was an explanation of the improvement in the percentage of passes. But the number of failures was still far too high, and indicated that there was much need for systematic and definite study on the part of pharmaceutical students. Mr. Gilmour proceeded to speak of the Edinburgh library, urging the members both in town and country to use it more freely. He then referred to the

EVENING MEETINGS.

"There has been a very great difficulty of late," he said, "in keeping up a supply of suitable contributions, and the cause for this state of matters demands the careful consideration of the coming executive. I have long thought over and taken a deep interest in this subject, and I may, therefore, be excused if I dwell for a single moment upon it. If there is one feature more than another which imparts interest to our evening meetings, and which always brings out a large and appreciative as well as an attentive audience, it will certainly be a subject which bears more particularly upon our calling, and which, let me say, should avoid pharmaceutical politics on the one hand, and ultra-scientific subjects on the other. This is exactly the point where the difficulty begins. Some who might probably contribute valuable papers are deterred from doing so for fear that they are not sufficiently scientific. Others who might give higher scientific papers get little encouragement to do so—at least, considered in the light of conversation; whilst a large class find little time and less encouragement to give their experience in the trying struggle for bare existence. Beyond all these, however, the development of specialities, which has of recent years been a leading feature in many of our manufacturing establishments, on whom we have mainly depended for scientific papers in the past, has prevented the publication of many details of general interest. Naturally when any improvement is discovered the first incentive is to make the most of it possible; and in this fact we have after all the one principal factor in the decline of papers at our scientific meetings. 'Everyone for himself, and none for the State.' Probably the two features which will stand out most prominently in the present year's pharmaceutical history are

THE VISIT OF THE PRESIDENT

to the different large pharmaceutical centres and the celebration of the Society's Jubilee so recently held in Bloomsbury Square. The one event certainly enhances the importance of the Society's work at home, while the other was no less calculated to further its importance abroad. (Applause.) It would ill become me were I to vacate office without bearing testimony to the uniform courtesy and ability with which Mr. J. Rutherford Hill, the assistant-secretary of the Society for Scotland, has performed his duties during my chairmanship. Whoever succeeds me will find Mr. Hill an able helper, always willing to take the heavier burden of the work, and who will help to the very utmost of his power the interests of the Society."

THANKS TO MR. GILMOUR.

Mr. STORRAR said they were certainly much indebted to Mr. Gilmour for his address, and that would in a way make up for his absence. He had referred to several points that had come prominently before them during the year. There was one point which he would specially indicate—namely, that in which he referred to the desirability of having the membership of the Society increased. He thought that the only hope for the future of pharmacy was that the whole trade should join the Society, so that it might become thoroughly representative. This was much better than denouncing the policy of the Society, and merely grumbling about what it did. It was self-evident that if the whole trade would come into the Society it could make the policy of the Society. They were all aware that during the past Session a thorough attempt had been made to pass an amended Pharmacy Bill through the House of Commons, but it was pretty well known that it had been found necessary to drop the proposal for the present Session. There was no doubt, however, that a similar important proposal would be brought upon the carpet next year, and such a measure could not be carried against opposition in the House of Commons without the support of the whole Society. He thought it would not be out of place if he suggested that this meeting should express its thanks to Mr. Gilmour for his services, and express regret at his absence, and ask Mr. Hill, the secretary, to convey to him their sympathy in his indisposition. (Applause.)

ELECTION OF EXECUTIVE.

The Secretary then read the report of scrutineers, which recorded that 308 nomination-papers were issued, and, as a

result sixty-three members and associates in business were nominated, of whom twenty-nine accepted nomination. Three hundred and eight voting-papers were issued. The scrutineers met on Tuesday, Mr. J. B. Stephenson in the chair. The result was found to be as follows:

Voting-papers issued	303
" returned	165
" informal	1

There were thus 164 votes to be recorded.

	Votes polled in	1891	1890
Gilmour, W., Edinburgh	134	127	
Boa, Peter, Edinburgh	122	126	
Kermath, W. R., St. Andrews	122	93	
Kinniamont, A., Glasgow	122	127	
Hardie, J. H., Dundee	121	117	
Maben, T., Hawick	120	127	
Strachan, A., Aberdeen	112	116	
Stephenson, J. B., Edinburgh	111	121	
Nesbit, J., Portobello	110	121	
Fraser, D., Glasgow	107	117	
Gibson, A., Edinburgh	105	96	
Paterson, J., Aberdeen	102	107	
McAdam, R., Glasgow	91	99	
Fisher, J. H., Dunfermline	83	101	
Kerr, C., Dundee	83	117	
Ewing, J. L., Edinburgh	78	72	
Jack, J., Arbroath	77	1st time	
Sutherland, J. W., Dumfries	76	"	
Currie, W. L., Glasgow	62	"	
Bethune, W. J., Inverness	56	"	
Lunan, G., Edinburgh	55	—	
Johnston, J., Aberdeen	55	60	
Laird, G. H., Edinburgh	55	—	
Thompson, T., Edinburgh	47	83	
Fowler, G. R., Forfar	44	1st time	
Fraser, J. I., Edinburgh	44	—	
McLaren, D., Edinburgh	39	1st time	
Coull, G., Edinburgh	37	37	
Coats, J. T., Leith	27	45	

The report was signed by J. B. Stephenson (chairman), Robert Aitken, William Burley, Claude H. Henry, and John Robertson (scrutineers).

Mr. MURDOCH (Falkirk), in moving the adoption of the report, said it was gratifying to find the matters were in a satisfactory position. He entirely agreed with what had been said by Mr. Storrar as to the trade coming into the Society. He had that day met a chemist from a neighbouring town, and on asking him if he was to attend this meeting he replied that he would have nothing to do with the Pharmaceutical Society at the present time. Now, his (Mr. Murdoch's) opinion was that that was a great mistake, and that the more members they had in the Society the better it would be for the drug-trade as a whole.

Mr. DAVIDSON (Montrose) seconded the motion, which was unanimously agreed to.

The CHAIRMAN then declared that the first seventeen named on the list given in by the scrutineers, together with the President and the Vice-President of the Society and Messrs. Storrar and Watt, would constitute the Executive for the 1891-92. He proposed a vote of thanks to the scrutineers.

Mr. STEPHENSON replied.

PATENT MEDICINES.

The CHAIRMAN then said that any member who wished to bring forward any subject could now have an opportunity of doing so. The past year had been a very important one in some respects, and they were likely to have a good deal to do in the future. It had been said that the executive had little work to do. That was undoubtedly so, and he thought the Council ought to be induced to give the executive more work.

Mr. MURDOCH desired to draw attention to the question of patent-medicine stamps. For instance, they had a congh-mixture put up in 6d. bottles, and now the Revenue authorities insisted on each bottle having a 1½d. stamp affixed. This addition of about 25 per cent. was, he thought, a serious matter for poor people. It occurred to him that in place of having a 1½d. stamp, which was the proper stamp

for a 1d. article, they might have a stamp of a half that value for a 6d. article. Then in connection with the sale of patent medicines, now the licence had been reduced to 5s. it had become a serious matter, for these articles were being sold in grocers' shops and such-like places everywhere. It would be better to have a licence at a guinea, as it used to be. In fact, the matter had come to such a state that now vans and barrows and such-like vehicles were being employed for hawking these articles about the country. He had noticed that recently the Inland Revenue authorities had attempted to stop "Sequah," and he thought that they ought to agitate to have these stamps reduced in value. They might even have ½d. and 1d. stamps, and he would move that the executive should be asked to consider this question.

Mr. BOA said that the Inland Revenue authorities had decided not to grant patent-medicine licences to vans.

Mr. STORRAR remarked this was an important question to which Mr. Murdoch had drawn attention. He was himself of opinion that the trade had committed a tactical blunder in agitating for the reduction of the patent-medicine licence to 5s. He would also like to point out that the tendency of a reduction in patent-medicine stamps as suggested by Mr. Murdoch would be a doubtful improvement. The danger was that it would simply introduce more cutting into the price of patents, and that certainly was not what was wanted.

Mr. Murdoch's motion not being seconded, the matter was allowed to drop.

WORK FOR THE EXECUTIVE.

The CHAIRMAN said there was still on the minutes of the executive a motion to the effect that they should consider the question of increasing the membership of the Society in Scotland. He thought that during the coming session something might be done in this direction, and then they would have a greater chance of securing reforms. Then it was to be remembered that the British Pharmaceutical Conference would probably meet in Edinburgh during 1892, and he thought it was desirable that on that occasion the Society should be able to show a strong front. It would also be open to them to consider whether either this year or during the sittings of the Conference they should not in some way celebrate the jubilee of the Pharmaceutical Society. He had the pleasure of being present at the recent celebration in London, when they had very successful meetings. He was rather disappointed that Scotland was so poorly represented on that occasion. He was sure that whatever their private opinions on pharmaceutical politics might be, they were all agreed that the Society had done a very great deal of good to pharmacy all over the country; and they were all disposed to congratulate themselves on the attainment of the fiftieth year of the Society's existence. He should like to suggest that this matter of increasing the membership be remitted to the executive for their consideration.

Mr. STEPHENSON said it was certainly very desirable that this question should receive their attention. As to the Jubilee celebrations, he and others had felt that they could not as an executive take any action in what would be practically congratulating themselves. His view was that the executive was included in the greater body—namely, the Council of the Society. Though they were not present in person, it was of course to be understood that they were present in spirit.

The suggestion as to the increase of membership was then agreed to, and thanks to the chairman concluded the business.

ECONOMIC PRODUCTS OF CENTRAL ASIA.—The cultivation of cotton in the Central Asian province of Russia, to the success of which we referred recently, is not unlikely to supply our markets within the near future with its product, in competition with American cotton. A large spinning-factory in France has just purchased 300 bales of Russian cotton for experimental purposes. Chemical works have also been established in Central Asia, but the difficulties of transport are very great. In one part of Turkestan, for instance, the wine-growers have to obtain their bottles from a factory which is 1,700 miles distant from their plantations.

BANKRUPTCY REPORTS.

Re EDWARD PEW, Nye's Wharf, Canal Bridge, Old Kent Road, trading as Pew & Company, Vinegar Manufacturer, Oil Refiner, Cordial Distiller, and Sauce and Pickle Manufacturer.

THIS bankrupt failed on April 23, 1890, with liabilities amounting to 11,504*l.* 4*s.* 8*d.*, expected to rank against assets valued at 3,672*l.* 4*s.* 8*d.*, and on Friday, June 12, he applied to Mr. Registrar Brougham, at the London Bankruptcy Court, for an order of discharge.

The report set forth that the bankrupt in 1880, having about 2,500*l.* capital, purchased the Surrey Vinegar Works at Nye's Wharf, and there traded up to the date of the failure. The agreed price of the works was 3,348*l.*, of which 348*l.* was paid in cash, the balance being allowed to remain as a loan, in respect of which there was at the date of the receiving order about 2,700*l.* still due for principal and interest. In January, 1887, the bankrupt prepared a balance-sheet, showing a surplus of 1,850*l.* Since that date he has taken stock annually, but has apparently taken no steps to ascertain his financial position or the result of his trading. During and since 1887 the bankrupt attempted to extend the export branch of his business, and considerably increased his shipments to the Australian Colonies, his practice being at once to draw bills against such shipments, most of such bills being drawn upon and accepted by Messrs. Atkins & Co., St. Helen's Place, Australian and New Zealand merchants. Considerable losses resulted in connection with this extension of the business, and from 1888 onwards some bills were drawn on and accepted by Messrs. Atkins and another firm against consignments which had not been made, but which the bankrupt alleges it was contemplated should at some future time be made. At the date of the receiving order the bankrupt was liable on bills to the extent of 20,000*l.*, of which about 4,354*l.* represented these bills drawn against future shipments. The bankrupt alleges that he did not become aware of his insolvency until February, 1890, when Messrs. Atkins failed, and he lost the assistance afforded him by their acceptances; but having regard to the losses made in the consignment branch of the business, which are stated in the deficiency account at 6,178*l.* 6*s.* 1*d.*, it is evident that through such losses the bankrupt was rendered insolvent before the end of June, 1889, and that an investigation of the affairs would have at once revealed the fact. A large proportion of the unsecured debts was incurred since June, 1889, a considerable portion, over 2,000*l.* being incurred since December, 1889. The report alleged insufficient books, and that the bankrupt had been guilty of misconduct as a trader in continuing to trade and incur liabilities during the period subsequent to December, 1886, without examining into his affairs and ascertaining his financial position and the result of his trading, he having been throughout the greater part of such period insolvent, and throughout the whole of such period trading at a loss.

After hearing Mr. Cooper Willis, in opposition, and Mr. Herbert Reed, in support of the application, his Honour held that the allegations had not been displaced, and suspended the discharge for twelve months from the conclusion of the public examination in July, 1890.

Order entered accordingly.

Re FRANCIS GEORGE HALL, Newbury, Chemist and Druggist.

THE statutory meeting of creditors under this failure was held on June 12 at the offices of the Official Receiver for the Reading district, Temple Chambers, E.C. The debtor's summary of accounts was published last week. In reply to Mr. Wyatt (a creditor), the chairman stated that the fully-secured creditor held a mortgage over the house and shop occupied by the debtor. The bankrupt, in answer to questions put by the Official Receiver, stated that he based the value of his stock-in-trade, &c., on the assumption that the business was a going concern. The chairman remarked that under a forced sale the effects, instead of realising 267*l.*, might only fetch 167*l.* Mr. Wyatt said he had known the debtor a good many years, and he considered it was a

case of pure misfortune; he had, no doubt, fought hard. The debtor said the principal cause of his failure was his having been laid up six months for two successive years, and three months for the six years previously. As there were not enough creditors present to form a quorum, no resolution was passed, consequently the estate will be wound up in the usual way by the Official Receiver.

Re ARTHUR LEONARD THOMPSON, Blackwallgate, Darlington, Agricultural Chemist and Grocer.

THE adjourned examination of this debtor was held at the Stockton Bankruptcy Court on June 15. Mr. Registrar Crosby presided, and the Official Receiver conducted the inquiry. The debtor admitted that on April 1, 1890, he wrote a letter to Mr. Thorley, London, cattle-spice dealer, respecting an account for 3*l.* 10*s.* for goods ordered by and for debtor. In that letter debtor expressed regret that, owing to Mr. J. C. Thompson being from home, the account had not been paid, but that on his return it should receive prompt attention, and the letter was signed J. C. Thompson, per A. L. T. The statements in that letter, the debtor admitted, were false, for J. C. Thompson was his father, and had been dead for several years. His object in writing it was simply to gain time. In April, 1890, he ordered 25*s.* worth of goods from the Old Calabar Biscuit Company, in the name of J. C. Thompson. They issued a county court summons against debtor in that name when he informed the bailiff his name was Arthur Leonard Thompson. He also wrote to the Old Calabar Company, stating that his landlord was in possession of a stamped agreement for one year's rent, 80*l.*, which was due, and that he had assigned his business to his brother, and that "seeing I have no goods or effects of my own, except wearing apparel, in actual use, it will be useless issuing an execution against me." Debtor now admitted the statements in that letter to be false. The landlord was his mother, the agreement was not stamped, and he had assigned his business as he wrote. He also admitted numerous other letters of a similar misleading character. The examination was again adjourned.

Re JOHN THOMAS WALKLATE, 2 Broad Street, Bristol, Homœopathic Chemist.

THE public examination of this debtor was conducted at the Bristol Bankruptcy Court on June 12. Mr. Brown appeared for the debtor, and Mr. King for creditors. Mr. King examined the debtor as to his dealings with Mr. Rossiter, builder. Debtor said Mr. Pitt, his former partner, now carried on the businesses at Bath and Cardiff. They were carried on in debtor's name, but not in his interest. The examination was adjourned to June 26, when it will be closed.

Re J. A. H. TOULSON, Leeds, Chemist and Druggist.

THE public examination of this debtor was held at the Leeds Bankruptcy Court on June 9. Bankrupt had commenced business in Kirkstall Road, Leeds, in 1861, without capital. In 1880 he removed to North Street, Leeds, having converted a private house into a shop at a cost of 200*l.* He was then owing 450*l.* The business was not sufficiently good to enable him to pay off his old liabilities, and he had consequently drifted until he had become hopelessly involved, although he had apparently exercised the strictest economy, and had devoted the whole of his time to business. The examination was closed.

NEW YORK is to have a hotanical garden. Two hundred and fifty acres of the Bronx Park have been secured, and the City has promised \$500,000 to lay out the grounds, provide buildings for museums, laboratories, herbarium, lecture-rooms, and hothouses.

THE WASHINGTON STATE PHARMACEUTICAL ASSOCIATION has recently held its second annual meeting at Ellensburg. We notice that the proceedings commenced with prayer. The members of the association congratulated themselves on having obtained a Pharmacy Bill for the State since they last met.

DEED OF ARRANGEMENT.

The following deed of arrangement with creditors has been filed at the Bills of Sale Office, under the provisions of the Deeds of Arrangement Act, 1837. Some of these deeds are for the purpose of carrying out compositions with creditors (and such are specified below), but the great majority of them are "assignments" in the ordinary form, to a trustee or trustees, for the benefit of creditors. The Act referred to expressly provides that registration shall not give validity to any deed which is an act of bankruptcy, and there is no provision, in the Act, making any of these arrangements binding upon dissenting creditors.

Thurston, Frederick, Long Melford, Chemist and Druggist and Wine and Spirit Merchant. Trustees: Eustace F. Lankester, Stowmarket, Wine and Spirit Merchant, and others. Dated June 8, 1891; filed June 15, 1891. Unsecured liabilities, 2,497.8s; estimated net assets, 1,000l; creditors fully secured, 100l. The following are scheduled as creditors:—

	£	s.	d.
Ayton, —, & Mrs., Melford	11	8	7
Baker, A., & Sons, Sudbury	11	10	6
Baukers' claims	300	0	0
Barringer, J., & Sons, London	15	14	10
Blythe, A., Melford	83	8	3
Bourne, Johnson, & Latimer, London	11	0	9
Browning & Co., London	16	5	8
Bury and Ipswich Post, Bury St. Edmund	25	0	5
Chater & Sons, London	13	17	3
Churchman, —, Ipswich	20	17	4
Collett, Dodds, & Co., London	25	6	1
Everard, Thomas, Long Melford	13	0	8
Garrod, Miss, Sudbury	33	6	5
Herrings & Co., London	33	3	4
Hudson, P. L., Pampford	50	7	3
Jarvis, T., Haverhill	57	14	4
Lankester & Wells, Stowmarket	536	14	1
Lloyd, R., & Sons, London	21	9	4
Mann, E., & Co., Sudbury	29	14	7
Marten, B. R., Sudbury	12	14	4
Maw, Son, & Thompson, London	35	12	5
Nicholson & Co., London	13	10	2
Pflecher & Sons, London	14	2	8
Sanger & Son, London	56	2	7
Talbot & Co., Ipswich	12	0	0
Tidman & Sons, London	25	5	0
Thurston, —, sen., Fressingfield	370	12	2
Thurston, W., Laxfield	356	10	11
Wickham, F., Melford	12	6	0
Wright, Layman & Umney, London	14	13	9

NEW COMPANIES.

THOMAS SHIELDS & Co., GLASGOW.—Capital 500l, in 12. shares. Object: to take over and carry on the business of wholesale and retail chemists and druggists, at present conducted under the name of the North British Apothecaries' Hall, at 37 Dundas Street, Glasgow.

HEDWORTH BARIUM COMPANY (LIMITED).—Capital 9,000l, in 36. shares. Objects: to carry on business as manufacturers of chemical products and drugs, sanitary and disinfectant preparations, &c. The first subscribers (who take one share each) are:—H. Philipson, Tynemouth, colliery owner; W. Black, Loraine Place, Newcastle-on-Tyne, engineer; H. T. Morton, Fenton, coalowner; F. Ferguson, Gateshead, contractor; W. A. Rowell, York Street, Jarrow, chemist; J. C. Rollin, Jesmond, Newcastle-on-Tyne, agent; R. Rowell, Newcastle-on-Tyne, coalfitter. There shall not be more than seven nor less than three directors, and the first are H. Philipson, W. Black, and H. T. Morton. Qualification, 500l.

J. PRIESTLEY & COMPANY (LIMITED).—Capital 2,000l. in 102. shares. Objects: to manufacture botanic beverages, mineral and aerated waters, fruit-cordials, &c. The first subscribers are:—J. Priestley, New Chnrch, near Manchester, bookkeeper, 15 shares; Mary Priestley, New Chnrch, near Manchester, 10 shares; S. H. Flegg, King Street, Waterfoot, near Manchester, brewer, 15 shares;

Rhoda Flegg, same address, 10 shares; Jane Priestley, Spodden Cottages, Facet, near Rochdale, 10 shares; J. Ashworth, Market Street, Whitworth, salesman, 9 shares; Charlotte Ashworth, Whitworth, 1 share. Registered without articles of association. The registered office is at Vale Mill, Waterfoot, Lancashire.

IMPERIAL DRY PLATE COMPANY (LIMITED).—Capital 10,000l, in 12. shares. Objects: to carry on the business of manufacturers of and dealers in photographic dry plates. The first subscribers are:—J. J. Acworth, Sheldmont, Brondeshury, scientist, 1,000 shares; J. S. Dismorr, Hilcrest Lodge, Gravesend, gentleman, 500 shares; and G. S. Newth, Ealing, scientist; Mary J. Acworth, Sheldmont, widow; Eliza Acworth, Sheldmont, student; Henry Dismorr, Tudor Lodge, Lewisham, surgeon; H. A. Clowes, 2 Watterton Road, Harrow Road, doctor of medicine, 1 share each. There shall not be less than two directors. The first shall be J. J. Acworth, and J. S. Dismorr. Qualification, 500l. Remuneration to be determined in general meeting. Registered office, 1 Dufferin Street, Middlesex.

ELECTROLYTIC CAUSTIC SODA AND CHLORINE TRUST (LIMITED).—Capital 10,000l, in 102. shares. Objects: to purchase certain patents for improvements in the electrolytic production of caustic soda, caustic potash, and other products from their salts. The first subscribers are:—T. M. Dunster, 202 Upper Thames Street, paper agent, 25 shares; R. Wakefield, same address, paper agent, 10 shares; W. S. Wakefield, same address, paper agent, 5 shares; R. C. Baxter, Hithersett, Reigate, architect, 50 shares; R. Vogan, 220 Cromwell Road, corn merchant, 50 shares; W. G. Taylor, 83 Queen Victoria Street, E.C., esparto and chemical merchant, 5 shares; C. E. Green, United University Club, gentleman, 50 shares. There shall not be less than three nor more than seven directors, and the first are G. R. Tyler, C. E. Green, R. C. Baxter, R. Vogan, Col. T. J. Holland, and J. C. Richardson. Qualification, 500l. Remuneration to be fixed in general meeting.

Gazette.

PARTNERSHIPS DISSOLVED.

Hart, G. H., & Lundy, L. F., Smethwick, surgeons and medical practitioners.

Hughes, A. E., & Hughes, E., under the style of E. Cocks & Co., Winstanley Road, Clapham Junction, and under the style of W. Jamieson & Co., Stromi Terrace, Stamford Hill, sauce and pickle manufacturers and sundriesmen.

Myddelton-Gavey & Aymard, Ipswich, physicians, surgeons, and accoucheurs and general medical practitioners.

Newham & Pickard, Sheffield, manufacturing chemists and wholesale druggists.

THE BANKRUPTCY ACTS, 1883 AND 1890.

ADJUDICATION.

Ayton, Edward, Southwick Street, Hyde Park, surgeon-dentist.

ORDER MADE ON APPLICATION FOR DISCHARGE.

Lyeett, Ernest Forrest, East Greenwich, crucible manufacturer—discharge granted.

FOR CLEARING SHELLAC VARNISH, the opacity of which is due to wax and other substances which are insoluble in alcohol, E. Krissel recommends, in a German contemporary, the addition of a small quantity of lead carbonate, mixing well, and allowing the varnish to settle for 10 to 14 days.

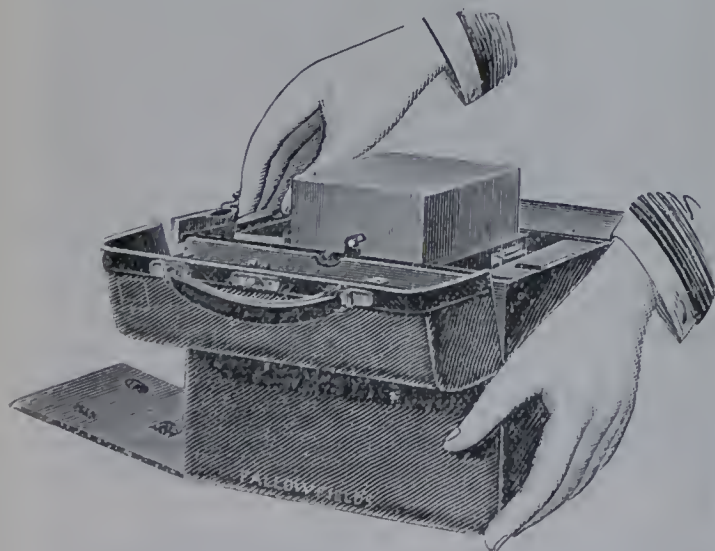
CRYSTALLISED PLATINUM.—Professor Joly announces that it is not necessary to use powdered topaz for sprinkling the platinum-ribbon which is destined, by a current of electricity, to yield platinum crystals; quartz dust serves as well. At the melting-point of the quartz (1,430° C.) the crystals begin to gather upon the projecting points of quartz. Crystals of platinum, which have been obtained by the action of chlorine upon platinum black by Professor Törnebohm, of Stockholm, are of the same shape as Professor Joly's.

Notes of Nobellies.

"MIALI" HAND-CAMERA.

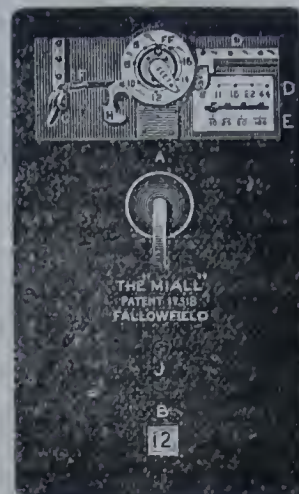
THE bag contains the latest thing in hand-cameras. It is made by Mr. Jonathan Fallowfield, of Charing Cross Road, W., who has started from his "Facile" camera, making advances and improvements upon it the aim, so that the camera might become one for use by those capable of bringing greater ingenuity and technical knowledge

to bear on the art. Yet it is simple—"Facilissima" it might fairly be called. Starting from the outside, we may note that the tiny Gladstone bag is ten inches long. As it is shown above it is ready for taking photos, but before the view can be seen on the finder a little shutter has to be pulled up. There is really little need of a "cap" or cover for a finder, but Jonathan Fallowfield's experience is that many people seeing the view on the finder forget to release the "cap" of the lens, take a snap, and—get no picture. So, by combining the finder-cover and the lens-cover as one, the maker ensures that no mistake of this kind will happen. This is one of the minor features of the camera. In all respects the principal advance in hand camera mechanism is the method in which the plates are inserted and changed. This is new, and permits a dozen fresh plates to be put into the camera and the used plates removed in broad sunlight without a dark room. The next figure shows the action of putting in fresh plates. To understand this we must briefly



explain the interior. We open the bag and get to the camera proper; here we find a sliding lid, which is the top of a flat plate-chamber. The store-box, which holds twelve plates, fits into this, as shown in the figure, and when it is put there we draw out the top of the chamber, then the box-lid, and allow the plates to drop in. It is obvious that the plates lie in the chamber in the horizontal position, and they are brought one at a time to the vertical, as required. The mechanism for this is exceedingly ingenious. First, each plate-holder has a pin at each bottom side. There is a groove at each side of the plate-chamber into which these pins slide when the plates are dropped in from

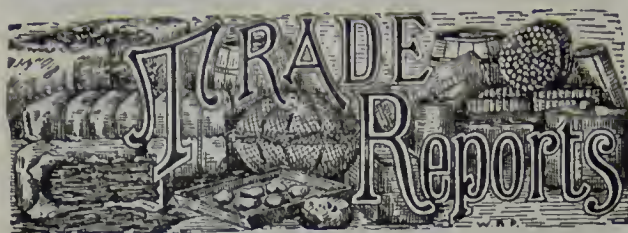
the store-box. The grooves are so curved that when we pull a lever at the bottom of the bag (A in third figure) a plate descends from the top chamber, describing a segment of the circle, and drops into the vertical position. When the lever is pulled again, after exposure, the plate drops into the back chamber vertically, while another is taking its place. There are efficient arrangements for keeping the plates firmly in position. The third figure shows the bottom of the camera. A, as we have stated, is the changing lever, which also controls B, so that the number of the plate in position is always recorded. The devices, apart from a high-class lens, which are introduced for securing a first-rate picture are—an Iris diaphragm, focussing arrangement, and controlled shutter. The diaphragm, controlled at D, can be adjusted to the degrees there indicated. A move of the arm of the focussing index immediately gives the requisite precision to objects within six to sixteen feet, beyond which the lens works at fixed focus with clearness. The shutter is a double, the "speed" one is between the lenses, and behind the lens is a safety one. The former is set at E to the speed required. The snap is taken by pulling the trigger G, which brings and keeps down the safety-shutter as long as the finger is upon it, while the speed-shutter takes only the desired flash. As the latter can be secured, it follows that time-exposures can be made, and at J there is a socket for placing the camera on a tripod. Unquestionably the novelty about the "Miall" which will commend it to photographers is the arrangement for changing the plates. There is no limit to the number of store-boxfuls which one may carry on a tour, and there is absolute safety in changing, as the inventor has proved by fifteen months' personal use of the camera. But, apart from this advantage, the adaptability of the apparatus for all conditions of outdoor photography gives it distinction. The camera is carefully and strongly made, and is covered with black leather or morocco.



AN OCCASIONAL BELT.

THE ZONA COMPANY, of 100 Charing Cross Road, W.C., are introducing a small belt for ladies, which they offer to the public through chemists and druggists. The belt is made of indiarubber, and is practically in one piece, so that it can be worn with great comfort. There is a tab at the front and one at the back, through the holes of which the pointed ends of the folded diaper are pulled, and the grip of the rubber keeps them thoroughly secure. The tabs are equally serviceable for sanitary towels. The belts are so simple, cleanly, and cheap that it would be worth the while of chemists to bring them under the notice of medical men and others interested.

A PHARMACEUTICAL PHILTER.—It was a phull-phledged pharmacist Who phell in love with a phreckled-phaced girl, But sho phaintly phaltered ho must desist, For his phurious phrenzy her brain did whirl. But iph phrom her phace the phreckles he'd take Sho phancied she'd phavour him phar more, she sighed. A very phino lotion he phound how to make, Which gained him a phortune, some phame and a bride.



Notice to Retail Buyers:—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.

It should also be recollected that for many articles the range of quality is very wide.

42 CANNON STREET, June 18.

RAILWAY RATES FOR "SMALLS."—The Joint Parliamentary Committee appointed to consider the schedules of railway rates for freight recommended by the Board of Trade considered the important subject of "smalls" on Wednesday and Thursday. Mr. J. Innes Rogers, of Messrs. Travers & Sons, and Mr. Charles Umney were deputed by the London Chamber of Commerce to offer evidence on this point, and representatives of Messrs. J. and J. Colman, and Huntley & Palmer, and of the Lancashire and Cheshire Association also appeared before the committee. The rates for "smalls" are at present reckoned on parcels of 500 lbs. and under, and the railway companies asked to have the limit raised to 560 lbs. The Board of Trade recommended a limit of 3 cwt., and the traders generally asked to have it reduced to 2 cwt. After hearing evidence and arguments the committee resolved to report in favour of the 3-cwt. limit suggested by the Board of Trade. They went even further, and fixed the maximum rates for "smalls" at the present actual charges. A wholesale druggist estimates that the reduction of the limit from 500 lbs. to 3 cwt. will bring under the tonnage rates about 12 per cent. of the parcels sent out to the trade. There is still a question open between the companies and the traders as to consignments over 3 cwt. in the gross, but made up of several packages under that weight; but it is likely that it will be decided that the consignment, and not the parcel, will be taken as the basis of calculation.

SYNTHETIC MUSK.—The *American Druggist* calls attention to experiments made by a Mr. Ungerer with artificial musk, which show the effect of its combination with such other substances as are used in the manufacture of perfumes and toilet soaps, since these combinations furnish a more reliable test of its value than the simple method prevailing among perfumers of judging by the odour given by blotting-paper moistened with a solution or tincture. Mr. Ungerer's experiments thus far show the disappearance of the odour of synthetic musk in the presence of benzoated tallow, soapstone, chalk, cacao-butter, Peru and tolu balsams, and all fatty acids. He thinks that a considerable limitation of its usefulness will result from its paralysing influence upon the olfactory nerve and its remarkable tendency to assert itself and overpower all other odours and destroy their combinations. It has an unfortunate disposition to stand alone without blending—or "marrying," as perfumers express it—with others, as is likewise the case with the amorphous precipitate called Neroline which has caused it to be a failure in the hands of perfumers. Another fact noted by Mr. Ungerer is the absence of hy-products. In the case of natural musk the odour is almost inexhaustible, and the substance not only yields by percolation a second and third tincture, but the dried residues are available for sachets, toilet-powders, or soaps. Perfumers have come to depend largely upon this valuable property of natural musk, and look to it as a necessity for lucrative manufacturing.

INDIGO-CARMINE, the colouring-principle of indigo, has been prepared artificially by Dr. Heymann in the laboratory of Bayer & Co., of Elberfeld. The process is such that the

dye can be prepared on the large scale, the chemicals required being phenyl-glycocol (a derivative of "gelatine-sugar") and fuming sulphuric acid. The best conditions for working the process on the large scale are as follows:—One part of phenyl-glycocol is mixed with ten to twenty times its weight of fine sand, so as to avoid local superheating during the process of addition to the fuming acid. The mixture is then introduced into about twenty times its weight of fuming sulphuric acid at a temperature of about 20°–25°. The yellow solution thus obtained yields instantly the blue coloration due to indigo-carmin on removing the large excess of sulphuric anhydride by the addition of ordinary oil of vitriol, sulphur dioxide being evolved. Upon further diluting with ice and addition of common salt the colouring-matter is precipitated, and may be readily isolated. The product thus obtained is found to consist of pure indigo-carmin. The tints obtained with this product are vastly superior in beauty and clearness to those obtained with even the better kinds of commercial indigo-carmin, on account of the higher degree of purity attained by this mode of preparation. So far 60 per cent. of the theoretical yield has been obtained, and in every respect the process seems likely to be a successful one, indeed, the only one, so far, which is likely to give a product to compete with natural indigo.

OUR COMMERCIAL BAROMETER.—The "readings" of the commercial barometer for April, based upon our Board of Trade returns for the month, and issued under the auspices of the commercial department of the Imperial Federation League are as follows:—1. *Imports*: While there has been a slight decrease in quantity—viz., 1.0 per cent.—there has been a considerable advance in value and average price, viz., 9.2 and 10.4 per cent. respectively. The advance extends throughout all the groups except those of animals—live, for food—which, as in March, shows a heavy decrease of 29.5 per cent.; raw materials for textile manufactures, chiefly sheep's wool, of 5.6 per cent.; and penny post, 11.5 per cent. The import of articles of food increased 22.1 per cent., and of tobacco, 47.6 per cent. The importation of wheat and wheat-flour increased 22.2 per cent., with an advance in price of 10 per cent.; that of Indian corn decreased 32 per cent., but its price advanced 54 per cent.; that of rice increased 75 per cent., with an advance in price of 7 per cent.; that of refined sugar increased 71 per cent., with only 1 per cent. advance in price; that of raw sugar 15 per cent., with an advance of 32 per cent. in price. 2. *Exports*: For the first time since September last there has been a substantial increase of tonnage, amounting to 5.5 per cent., which is wholly due to the large increase (21.3 per cent.) in the shipments of coal. Value, including coal, has increased 4.9 per cent.; but exclusive of coal the increase was 4.3 per cent. The increase in the total value of British exports, exclusive of coal, was a fraction less than 2 per cent. There has been no change in the average price, owing doubtless to a reduction of 5.6 per cent. in price of the largely increased quantity of coal exported. The moderate increase of value extends to all the groups except live animals, yarns, and textile fabrics, which show a decrease of 1.0 per cent., chiefly woollen and linen manufactures, and metals, chiefly iron and telegraphic wires, which have decreased 3.2 per cent.

ACID (CITRIC).—The market is rather dull and lower; 1s. 7½d. to 1s. 8d. is the nearest quotation on the spot. Juice may now be bought at 24l. 10s. f.o.b.

ACID (TARTARIC).—Dull and easier at from 1s. 1¾d. up to 1s. 2½d. per lb., according to brand.

ALOES.—There has been an arrival of 16 cases from the Cape since our last report.

ANISE.—Good China star-anise has sold privately at 95s. per cwt.

ARSENIC.—Offering at 12s. 3d. per cwt. for powdered white, lauded.

BORAX.—Firm at 28s. 6d. for crystals and 29s. for powder for the second-hand.

BUCHU.—Good short green leaves are in steady demand at full rates, say up to 6½d. per lb. for fine. There have been no arrivals.

CAMPHOR (CRUDE).—The market is very flat, and a sale of 5 tons Japan near at hand at 140s., c.i.f. terms, is reported. The spot price is nominal at 150s. to 155s. per cwt.

CAMPHOR (REFINED).—The price of English camphor is unchanged; foreign is rather easier, and quoted at 1s. 8d. per lb. net for forward delivery, while on the spot 1s. 9d. has been paid this week.

CANTHARIDES.—According to the last mail reports from China, an attempt was being made to keep up the price at the high figure of \$55 to \$60 per picul, but, as a matter of fact, quotations were giving way, and \$50 was being solicited for a parcel of 15 piculs without response. There is no demand in London.

CASSIA LIGNEA.—Mail reports from China, dated May 14 state that the stock of cassia lignea in Hong Kong remains large, notwithstanding considerable shipments to Europe. The available supply in Hong Kong is variously estimated at from 12,000 to 25,000 piculs. The new crop was expected at an early date. The London market remains dull at 22s. 6d. per cwt.

CINCHONA.—A rather moderate supply of bark was offered at auction on Tuesday, the total supply consisting of:—

	Packages		Packages	
Ceylon cinchona	600	of which	535	were sold
East Indian cinchona ..	1,116	"	1,031	"
Java cinchona	18	"	18	"
South American cinchona ..	321	"	82	"
Total	2,055	"	1,666	"

The excess in the supply of Indian over Ceylon grown bark, which has been noticeable at our bark auctions for some months, is still maintained. The East Indian cinchona on this occasion comprised one or two parcels of unusual alkaloidal richness. These were the produce of the well-known "Wentworth" plantation in British India, and were shipped from Calicut. One of the parcels in question consisted of 1,180 lbs. of natural Ledger shavings (said to contain an equivalent of 10 per cent. s.q.), which, after vigorous bidding, commencing at 7d. per lb., was disposed of at 12d. per lb.; another (which was reported to analyse 8.85 per cent., s.q.), sold at 10d. per lb. The proportion of yellow barks (Calisaya and Ledger) at the auctions was unusually large, whereas the grey varieties were offered exceedingly sparingly. The tone was a fairly good one throughout the sales, and over 91 per cent. of the Eastern barks sold, with pretty steady competition, at unaltered prices, the unit ranging from 1½d. to 1¼d. per lb.

The following are the approximate quantities purchased by the principal buyers:—

	Lbs.
Agents for the Mannheim and Amsterdam works ..	135,673
" Brunswick works	64,400
" Frankfurt o/M. and Stuttgart works ..	66,553
" Anerbach works	39,942
" American and Italian works	32,080
Messrs. Howards & Sons	29,903
Mr. Thomas Whiffen	1,990
Snadry druggists	41,874
Total amount of bark sold	412,415
Bought in or withdrawn	69,824
Total amount of bark offered	482,239

It should be well understood that the mere weight of bark purchased affords no guide whatever to the quinine yield represented by it; firms who buy a small quantity of bark by weight frequently take the richest lots, and *vice versa*. The following prices are shown by an analysis of the catalogues to have been paid for sound bark:—

CEYLON CINCHONA.—*Original.*—Red varieties: Thin woody and dull to fair bright branch and stem chips, 1¼d. to 3d.; ordinary to fine bright shavings, 1¼d. to 2½d.; dusty root, 1¼d. to 2¼d. per lb. Yellow varieties: Very weak Calisaya twigs and woody ledger chips, 1¼d. to 2¼d.; fair to good bright quilly branch and stem chips, 3¼d. to 5d.; cal.

verde shavings, 3¼d.; ordinary to fair bright root, 3d. to 4¼d. per lb. Hybrid chips, 2d. to 3¼d. per lb. *Renewed.*—Red varieties: Ordinary woody to fair bright chips, 2d. to 4½d.; fair to good strong shavings, 2d. to 5d. per lb. Yellow varieties: Ordinary to good bright shavings, fair to good strong quilly stem and branch chips, 3½d. to 6d. per lb. Grey good quilly shavings 7d. to 7½d. per lb.

EAST INDIAN CINCHONA.—*Original.*—Red varieties: Ordinary weak to good bright quilly chips, 1¼d. to 3½d.; ordinary woody to fair bright spoke-shavings, 2d. to 3d.; dull to good branch chips, 2¼d. to 3½d.; fair, partly broken and irregular, druggist's quill, 6½d. to 8d. per lb. Grey varieties: Fair to good quilly chips, 3½d. to 6d. per lb. Yellow varieties: Ordinary woody and poor chips, 1¼d. to 2¼d.; good to fine strong quilly chips, 4½d. to 7½d.; broken quill, 4d. to 7½d.; dust, 4¼d.; good root, 5d. to 5½d.; fair branch shavings, 2½d. to 4d.; fine rich shavings, 10d. to 12d. per lb. Hybrid chips, 2½d. to 2¾d.; dust, 1¼d. per lb. *Renewed.*—Red varieties: Ordinary to good bright chips, 3d. to 4¼d.; fair to good stem shavings, 2¾d. to 3d. per lb. Yellow branch chips, 4d. to 4¼d. per lb. Hybrid chips, 3½d.; shavings, 5d. per lb.

JAVA CINCHONA.—Ledgeriana dust, 3d. per lb.

SOUTH AMERICAN BARK.—A few bales cultivated Bolivian Calisaya bark sold at 2½d. to 6d. per lb., according to quality. Thirty-two bales soft Colombian (1880–83 import) realised, 1¼d. to 2¼d., and thirty-four packages hard Pitayo (1883–84 import), 1¼d. to 2¼d. per lb.

An analysis of the sales of manufacturing barks effected at the last Amsterdam auctions shows that an equivalent of 1,167 kilos. sulphate of quinine sold at 6 cents; 4,406 kilos. at 6½ cents; 2,280 kilos. at 7, and 317 kilos. at 7 cents per unit. Druggists' barks in quills were offered very sparingly. For long *Succirubra* quills of first quality the figure of 1s. 8½d. per lb. was reached. The richest bark offered was a lot of 27 packages Government-grown Ledger bark in broken stem quills. It analysed 8.27 per cent. q.s., and sold at 55 to 57 cents per ½ kilo. The next Amsterdam sales will be held on July 16.

CLOVES.—Zanzibar cloves are about ½d. per lb. dearer: ordinary dark to fair, 3¾d. to 3¼d. per lb.

COCA LEAVES.—At the Amsterdam bark auctions of June 11, 50 packages Java coca, crushed top leaf, were offered and sold at 37 cents per ½ kilo. (= 6¼d. per lb.).

COCHINEAL.—The market is dull at 1s. 1d. to 1s. 2d. per lb. for medium to good silvers; and from 11½d. up to 1s. 6d. per lb. for common to fine blacks. Little or no genuine grey blacks are offering.

COPPER (SULPHATE).—Quiet at 15l. 15s. per ton.

CREAM OF TARTAR.—Slow of sale and lower, at 95s. for best white French crystals, and 96s. to 97s. for German powder.

CUTCH.—Some sales are reported at 32s. per cwt. for *Flag BB*, and 30s. 6d. per cwt. for *Eagle* brand.

ERGOT OF RYE.—Dearer; for fine Spanish 1s. 7d. per lb. is asked, and Russian is not being offered below 1s. 6d., c.i.f. terms.

GALLS.—China and Japan galls very dull and without any transactions of importance. Fair to fine bold China aro quoted at 55s. to 57s. 6d. per cwt. on the spot.

GAMBIER.—The market is lower, both on the spot and for arrival. Sales have been made on the spot at 21s. to 21s. 6d. per cwt. for block, and at the auctions 392 packages damaged block sold at 19s. to 20s. per cwt., while partly pressed cubes were bought in at 36s. per cwt. Small sales of cubes are reported privately at 33s. to 34s. per cwt. To arrive May-June, June-July, and July-August sales have been made as low as 21s. per cwt.

GINGER.—A very large supply of Jamaica ginger was offered for sale on Wednesday, but only about 200 barrels out of 815 sold at reduced prices: good bleached, 82s. 6d. to 96s.; medium washed, 67s. to 72s.; ordinary to medium dull, 57s. 6d. to 63s. 6d. per cwt. Cochins was flat and was all bought in; 40 bags Bengal realised 15s. 6d. per cwt. In Liverpool African ginger has sold at 23s. per cwt.

GLUCOSE.—German is very scarce on the spot, and the price for forward delivery is equal to about 17s. per cwt. American nominally 13s. to 14s. per cwt.

GUM ARABIC.—The stock of Brazilian *Arabic* in Liverpool is exhausted, and some inquiries in that market remain unfilled in consequence.

INDIA-RUBBER.—Fine Pará has risen from 3s. 3d. to 3s. 5½d. per lb., but all other varieties are dull and rather pressed for sale.

INDIGO.—The market is very quiet in anticipation of the July auctions, for which a total of 6,850 chests (Bengal 3,925, Knrpah 2,135, Madras 440, and Bombay 350) has been declared. Arrivals are small, and holders would only sell at very high rates.

ISINGLASS.—At the periodical auctions on Tuesday fine Brazilian lump sold steady up to 3s. 5d. per lb.; ordinary to good bringing 2s. 4d. to 2s. 10d. Tongue and honeycomb, 1d. to 2d. easier. West Indian was lower, lump at 2s. 3d. to 2s. 6d. per lb. Saigon leaf, fair to good stont, brought 6s. 6d. to 7s. 2d.; brownish, 4s. 11d. to 5s. 9d.; purse, 1s. 1d. to 1s. 6d. per lb. Russian bold bladder sold at 4s.; Penang from 2d. to 6d. lower, except leaf, which was steady; ordinary to fair at 3s. 2d. to 4s. 4d. per lb. Bombay purse and leaf also steady, but other grades 2d. to 4d. per lb. lower.

OIL (CASTOR).—The price for first white Calcutta oil is 4½d. to 4¾d. per lb., while fair to good pale seconds offer at 3d. to 3½d. per lb. The Liverpool market is rather steadier, and Calcutta seconds are not obtainable there below 3d. per lb. On May 26 the market for castor oil in Calcutta was easier with increased supplies, and only a little business was being done.

OIL (COD-LIVER).—The Finmarken fishing closed on June 1, or about a fortnight sooner than usual, and the result is very poor. The total yield of fish and oil does not even come up to a fair average. It amounts to 29,172 hectolitres liver, and 772 hectolitres cod-liver oil; against 38,283 and 1,592 respectively last year. The following are the official figures representing the total production in hectolitres of medicinal cod-liver oil, and of liver available for other oils, in Norway during the last four years:—

1888		1889		1890		1891	
Cod-Liver Oil	Liver	Cod-Liver Oil	Liver	Cod-Liver Oil	Liver	Cod-Liver Oil	Liver
28,527	81,850	25,183	123,638	24,200	148,665	21,000	60,000

Average for 1888-1890—Cod-liver oil, 25,971; liver, 118,051.

		Cod-liver oil		Liver	
In 1891	Lofoten, and all districts south of Lofoten, yielded ..	..	..	20,000	30,000
Finmarken	yielded ..	..	..	772	29,172
Other small districts	probably ..	..	..	228	828
		Total about		21,000	60,000

Our correspondent writes:—"As the stocks of medicinal cod-liver oil left over from last year were very insignificant, it stands to reason that this year's production of 21,000 hectolitres will be insufficient to supply the trade until the new oil will be in the market next spring. It is therefore most likely that this article will fetch higher prices, if not now, at any rate in the autumn, when the usual demand sets in. The present value is about 70s. per barrel, c.i.f. East Coast."

OILS (VARIOUS).—*Cottonseed-oil*: Quiet, and rather easier on the week. London raw, 18s.; refined, 20s. 6d. to 21s. 6d. Liverpool, after an advance at the beginning of the week, has come down to 20s. 9d. to 21s. 3d. for Liverpool refined, while for American oil 22s. 3d. to 22s. 6d. is asked; Hull naked, 18s. 7½d. for refined, and 17s. 3d. for raw. *Cocunut oil*: Sluggish—fine Ceylon, 29s. 3d.; good Cochín, 34s. per cwt. *Linsed oil*: Barely maintained at 21s. 9d. to 22s. in London, Hull quotes 20s. 7½d. naked, and Liverpool (in export casks) 23s. 6d. to 24s. *Olive oil*: Eating oils are very firm, but the prices are still unchanged, although higher rates are anticipated. Cargo oils steady, but without animation—Spanish, 45s.; Mogadore, 40s. to 40s. 6d. per cwt. *Palm oil*:

Quietly steady at 26s. for fine Lagos. *Petroleum*: Very slow of sale, American at 5½d. to 5¾d., Russian at 4½d. to 4¾d. per gallon. *Rape oil*: Flat and lower, brown offering at 28s.; refined, 29s. 6d.; refined Stettin in Liverpool is quoted at 34s. *Turpentine*: American spirits rather steadier at 29s. to 29s. 3d. per cwt.

OPPIUM.—The arrivals of new-crop opium at Smyrna up to June 5 were 24 baskets, against 5 baskets on the same date of last year.

ORCHELLA.—Ceylon weed is cheaper, a parcel of 33 bales fair lat having sold at 20s. per cwt. at the auctions.

PIMENTO.—Dearer. At auction 207 bags sold at 2½d. to 2½d. per lb. for ordinary to fair, being an advance of ¼d.

QUICKSILVER.—The market is dull, and although the principal importers still hold nominally at 8l., some business has been effected by second-hand dealers at 7l. 15s. yesterday, and that would be the price to-day.

QUILLAIA.—Twenty-four bales were sold by auction in Liverpool, a few days ago, at 31l. 7s. 6d. per ton, ex store.

QUININE.—The market has been very flat this week, and the only sale of which we have heard was one of 7,000 oz Brunswick in second hands at 10½d. per oz, the figure showing a fresh decline in value; that is still the nearest quotation to-day, but the manufacturers themselves do not seem to care to give any quotation at all near the second-hand price.

ROSE-LEAVES.—The new crop of French leaves, which is the principal variety used in this market, will soon be to hand. The drug is now being offered at 3s. 6d. per lb., but may not unlikely go cheaper in the near future.

SHELLAC.—The market has been moderately active this week, but sellers have been compelled to accept reduced prices. Orange TN opened with business at 80s. 6d. to 81s. for September, but those figures would not be obtainable now. For August delivery 80s. has been accepted, and 81s. for October. To-day, 100 cases TN April-June sold at 78s. per cwt. c.i.f. terms. The auctions on Tuesday were very heavy, 1,713 cases being offered, of which 1,012 sold at an irregular decline of 1s. to 2s. on second orange and garnet, and 2s. on button lac. The following prices were paid: Fine orange—worked BSLS 82s. to 84s.; second orange, good bright unworked, 77s. to 80s.; ordinary livery to good worked, 74s. to 77s.; ordinary worked, 70s. to 71s.; livery to good reddish unworked, 72s. to 77s.; garnet—fair free worked AC, 72s. 6d.; button—unworked, bright but blocky firsts, 81s. to 82s.; fair to good blocky seconds, 77s. to 80s.; thirds and fourths, 69s. down to 62s. per cwt. Mail reports from Calcutta, dated May 20, describe the market both for shellac and buttonlac as very excited, owing to the higher quotations which are called from London. There was a good inquiry, but holders were not willing to sell at reasonable rates, and prices were all more or less nominal.

SOY.—Slow of sale, at 1s. 2½d. to 1s. 3d. per gallon for good China.

STICKLAC.—Our stock of this article is said to be exceedingly small, and the holders now ask 70s. per cwt. for fine free Siam, but that price must be considered more or less nominal.

TEA.—The China market shows very little life, sales being light, and quotations generally unchanged. A few hundred boxes of 1891-2 Newmake sold, as was to be expected, at rather easier prices than those of the previous week, and so far the quality is undesirable. The quantity afloat is small, but the country demand so far appears smaller, and unless better liquoring teas arrive in the next few ships we shall probably see low prices. Common clean Congou sold on Tuesday at 5½d.; and it is a cause for congratulation that, owing partly to the vigilance of the Customs authorities here, the importation appears to have been stopped of the very low rubbish that was sailing at 5½d. a few months ago. The Indian sales are now very light, and consist largely of secondhand teas. Prices have rallied a little after the smart fall of the last few weeks, and the terminal market is rather firmer at 8½d. for June delivery. The country buyers, however, are only buying Indian growths very sparingly. Another heavy Ceylon sale of 19,000 packages went off rather slowly on Tuesday, good teas being steady, but common sorts inclined to be irregular.

TURMERIC.—Prices are very well maintained. At auction on Tuesday 131 bags were offered, and all sold: bright Madras finger at 17s. 9d., and good split Cochin bulb at 11s. 6d. to 12s. per cwt. Privately there have been sales of fair Bengal finger at 16s. per cwt.

WAX (JAPAN).—The market is dull at 42s. 6d. per cwt., nominally, for good hard pale squares.

CHEMICALS IN THE NORTH OF ENGLAND.

THE Newcastle market for heavy chemicals is very steady, with a good business doing in bleaching-powder and caustic soda. Liverpool market continues quiet, with little change to report.

BICARBONATE OF SODA quiet, at 6l. 15s. to 7l. per ton, in 1-cwt. kegs, f.o.b. Liverpool, less 2½ per cent.

BLEACHING-POWDER steady, at 6l. 10s. to 6l. 12s. 6d. per ton, in softwood casks, free on rails, and 6l. 15s. per ton, f.o.b. Liverpool. Hardwood casks 5s. per ton extra. Newcastle prices quoted 6l. 15s. and 7l. per ton, f.o.b. Tyne, for softwood and hardwood casks, respectively, net cash.

CAUSTIC SODA.—A good demand reported on Tyneside at 12l. 5s. per ton for 77 per cent., and 11l. per ton for 70 per cent., f.o.b. Tyne. Liverpool prices for large parcels are 11l. 15s. per ton for 74 per cent., 10l. 15s. per ton for 70 per cent., and 9l. 10s. per ton for 60 per cent. Cream caustic, 60 per cent., 9l. 5s. per ton; all net cash, f.o.b. Liverpool.

CHLORATE OF POTASH quiet, at 5½d. per lb., less 5 per cent., f.o.b. Liverpool, and 5½d. per lb., less 6 per cent., f.o.b. Tyne.

HYPOSULPHITE OF SODA firm, at 7l. per ton in casks, and 7l. 10s. per ton in kegs, net cash, f.o.b. Tyne; 7l. 10s. and 8l. per ton, c.i.f. Liverpool; and 7l. 12s. 6d. and 8l. 2s. 6d. per ton, delivered Manchester, for casks and kegs respectively.

SODA ASH steady, at 5l. 7s. 6d. per ton for 48 per cent. carbonated, 5l. 16s. 3d. per ton for 52 per cent., and 6l. 10s. per ton for 58 per cent.; canstic, 48 per cent., 5l. 2s. 6d. per ton; 52 per cent., 5l. 11s. 3d. per ton, net cash, f.o.b. Liverpool. Newcastle, 48–52 per cent. carbonated, quoted 1½d. per degree, less 4 per cent., f.o.b. Tyne.

SODA CRYSTALS quiet, at 3l. 2s. 6d. to 3l. 5s. per ton, in casks, on rails, and 3l. 5s. to 3l. 10s. per ton, f.o.b. Liverpool. Tyne makes quoted 2l. 15s. 6d. per ton, gross weight, f.o.b. Tyne.

SULPHATE OF COPPER easier, at 15l. 5s. to 15l. 10s. per ton, f.o.b. Liverpool, for prompt delivery, and 16l. to 17l. per ton quoted for forward.

SULPHATE OF SODA quiet, at 40s. to 42s. 6d. per ton, on rails, at Widnes and St. Helen's; 40s. per ton in bulk, and 50s. per ton, ground and packed in casks, f.o.b. Tyne.

GERMAN MARKETS.

HAMBURG, June 16.

ALL branches of our market remain quiet without any decided alterations in price, although Peruvian balsam, condurango, beeswax, and Vera Cruz sarsaparilla are quoted somewhat higher. Citric acid, Japan wax, and copaiba balsam are well maintained in price, whereas antimony, toln balsam, Chilian honey, menthol and Carnauba wax must again be reported easier.

ANTIMONY.—Very heavy offers of crude Japan are in the market and continue to depress it; even small lots may be bought now for 56m. to 57m.

ALOES.—*Curaçoa* unchanged and quite neglected. All qualities are cheap and offering very profusely.

BALSAM (COPAIBA).—Firmly held, but the demand leaves much to be desired. The importers are offering good quality at 4.50m. to 4.60m.

BALSAM (PERUVIAN).—There is some revival of interest for this article, and all the lots which were offered by the importers have been cleared off the market. The demand for the article is on the increase, and as our stock is in firm hands it is likely that higher prices will be quoted shortly.

BALSAM (TOLU).—Flat and without business; the nominal quotation is 2.50m.

CANTHARIDES.—Quiet, and without demand.

CONDURANGO.—Speculators have once more bought up all the available supply, and they now quote 130m. No fresh arrivals are known of.

JALAP.—The recent imports of 67 bales have been transferred at high rates to second-hand holders; really fine jalap is now scarcely procurable under 2.50m.

HONEY (CHILIAN).—Without any animation, and offering very freely, both on the spot and afloat. From 26m. to 27m. would easily secure supplies.

MUSK-SEED.—A lot of 55 bales is being hawked about by the importers at the low rate of 90m.

OIL (COD-LIVER).—Medicinal oil is again dearer, and the supplies are becoming very small. For delivery there is nothing more to be had below 65m.

OILS (ESSENTIAL).—*Japanese peppermint* is offering cheaper for future delivery. *Menthol*, ditto. New arrivals of *Linaloes* oil have arrived here; the proprietors ask 20m. to 21m.

OSSA SEPIA.—Fresh arrivals of African cuttle-fish have been received here, but they were quickly bought up at full rates.

WAX (BEES').—All descriptions continue to be in considerable demand, and realise high prices. Fifty cwts. of *Chilian* have just come in.

WAX (CARNAUBA).—The recent imports have depressed the market, and this wax is now being offered more cheaply. It would be easy to buy grey wax at 95m.

WAX (JAPAN).—Well maintained in price. The demand is a regular one, and on the spot from 79m. to 80m. is paid, while for delivery the quotation is 77m.

THE ELECTRIC RAILWAY recently opened in London is causing serious disturbance of the magnetic observations at the Greenwich Observatory, although the nearest earth-plate connected with the observatory is two-and-a-half miles distant from the railway. The disturbance begins and ends with the commencement and finish of the day's traffic on the railway.

A CHEMIST'S WOES.—"If Job, the patient man of the Bible, had lived in our days," said the proprietor of a Piccadilly pharmacy, "he would certainly have been a druggist, for there is no business in which patience is more needed than this. I have never been able to understand why chemists' shops are considered by everyone as bureaus of general information. The custom is of such long standing that some people seem to think that we are obliged by the terms of our licence to keep postage-stamps and directories for the use of the general public. Women seem to think they are conferring a favour when they ask a druggist to hunt up a name for them in the directory and address an envelope, using his own pen and ink for that purpose. Of course we are supposed to know everyone who resides within a mile or two of our shop, and to be familiar with the main facts of his or her personal history. Even the children have the same idea as their elders, and continually pester us for the illustrated advertising cards of patent-medicine manufacturers. A humorous druggist caused much amusement and no little comment by putting up in his window a list of charges, varying from one penny to a shilling, for the numerous conveniences and accommodations which the public had hitherto regarded as theirs by right of custom. We are all satisfied that the slight increase of custom obtained by making our shops bureaus of general information is more than offset by the trouble and annoyance. I should not be surprised to see a combined movement by druggists to hide their directories and hang out signs, saying, 'No postage stamps sold here.'"—*New York Herald* (London Edition).



Memoranda for Correspondents.

Always send your proper name and address: we do not publish them unless you wish: if you do not, please use a distinctive nom-de-plume.

Write on one side of the paper only; and devote a separate piece of paper to each query if you ask more than one, or if you are writing about other matters at the same time.

If you send us newspapers, please mark what you wish us to read.

Ask us anything of pharmaceutical interest: we shall do our best to reply.

Before writing for formulae consult the last volume, if you have it.

Letters, queries, &c., will be attended to in the order received.

Patent-medicine Advertising.

SIR,—My observations, as expressed in my previous communication to your valued paper, were simply an expression of a personal opinion, substantiated by such argument as I, then and now, consider to have a particular bearing on the case under discussion. It was not an attempt on my part to "enlighten advertisers who have encountered the difficulty" so graphically described by Mr. Richards. There are doubtless many advertisers more competent to give advice than I am. It is not necessary that I should "cite evidence" to prove that in my opinion there is no necessity for a proprietary medicine to arrive at a sticking point. Of course there is reason in all things.

If the sale of Mr. Beecham's pills had reached that point where it could be safely computed that it would require every man, woman and child to take one of his pills every day, he might then, in my opinion, sit himself down and say: "I have reached the sticking-point." It is the ingenuity of the advertiser that forces one competing medicine ahead of the other in point of sales, but not always in point of profit. The advertiser may be ingenious, he may be admired for his courage but condemned for his judgment. It is not always the largest sales which carry the largest amount on the right side of the balance-sheet at the end of the year. The real science and art of advertising consists, after all, not in the amount of our sales, but in the amount of money we make.

If I for one moment thought I possessed the best method for maintaining sales or extending sales beyond any particular point (at a profit), I should not publish it in the columns of such a widely circulated medium as the esteemed CHEMIST AND DRUGGIST for the benefit of my competitors. Oh, dear no! I should apply it for the benefit of the firm whose business I have for so many years had the honour to manage, and if it was really valuable it would be adopted by the imitating advertiser quite soon enough.

Neither should I, if I had new methods for publicity, embody them in this letter. I should first get all the possible benefit I could for my firm.

I take strong exception, however, to the evident misconception which Mr. Richards places on my observations concerning high-priced advertising mediums. I did not intend to convey the impression that an advertiser "should undertake to estimate the result of each particular advertisement." Mr. Richards is seeking for a solution of the sticking-point problem. I pointed out the possibility that certain mediums might be the wrong ones, and I think Mr. Richards could have at least made himself more plain to those of us who are always willing to learn had he stated his reasons why, if an advertiser should figure out how many bottles of his medicine he would have to sell to get his 100% back "he is demoralised and has lost his grip."

Now, I do not think I am "demoralised," and while my "grip" is not quite as strong as it was before I had the influenza, I think it is still there. It is not an infrequent thing for me to figure the result out in just that way. After all, it is that which tells the story. We are spending so much money and making money; the question arises, Shall we or shall we not spend as much more? and to my mind it

is quite a natural thing for the judicious advertiser to ascertain how many goods he will be obliged to sell to get his money back from the now expenditure, especially if he is to expend a considerable sum in expensive mediums like those referred to.

Mr. Richards says, "It is a matter of each man's experience and the peculiarities of his business to say which is the best to use." Just so, but Mr. Richards is asking us to assist him in solving a problem. Of course if he has got the problem solved, our humble opinion will be of no assistance. If Mr. Richards knows just the advertising medium either from "experience or from the peculiarities" of the average patent-medicine business, to put his money into, he is the gentleman to whom I want to go to school.

I have an opinion, and before I sat quietly down and hugged myself into the belief that any medicine under my management had reached a "sticking-point," I should ask myself some very severe questions, among which would be: "Are you sure that these mediums are the best? Are you sure that you are getting the money back which you are expending in these mediums? Are you sure you cannot extend the sale of your speciality without additional expenditure?" It is easy to say, "Yes," but how do we know?

I claim we know nothing at all about the matter from "experience." Which of us who advertise a patent medicine can tell to a certainty what mediums pay (except that if I desire to reach the greatest number of dealers in medicine then I should place my announcements in THE CHEMIST AND DRUGGIST, which from experience I have found pays)? But what "experience" can govern in choosing mediums for ordinary advertisers? None whatever: hence I claim that the advertiser, under these circumstances, shows good judgment when he hesitates long enough to figure out the result as far as some of these expensive things are concerned, before he goes into them.

It would be a comparatively easy matter for any of us when we got tired and sales had held about the same for several months, to say, "Oh, well, it has reached the sticking-point; I can't raise it, so will off to Monte Carlo or to America for a rest." Suppose Mr. Barrett had adopted that theory in respect to "Pears' Soap," he might have reached the sticking-point before he paid Sir J. Millais two thousand guineas for "Bubbles," before he invented "Good Morning! Have you used Pears' Soap?" and numerous other original ideas which are quite characteristic of this the grandest advertiser the world has ever produced. Why has Pears' Soap double and treble the sale of any other toilet soap in the world? Simply because there is a gentleman behind it who would scorn the idea of a sticking-point as long as originality and brains were in existence. He leads, and others make a laboured effort to follow; he originates new ideas, which the little fellow, who thinks the sticking-point is reached, tries in his little feeble way to imitate.

While I have a strong objection to making any of the particulars of my firm's business public property, I see no harm in stating thus far the fact that for 12 consecutive months I have held the sales of St. Jacobs Oil in Great Britain to an average of 409 gross per month, selling 4,908 gross during twelve months, on a total expenditure for advertising purposes which left a very satisfactory margin of profit. I do not care to make public the actual figures.

Again, in six months I have carried the sale of St. Jacobs Oil from 65 gross per month up to 630 gross per month, which facts are a matter of record on our books. St. Jacobs Oil is a 2s. 6d. article which makes Mr. Richards's idea (as I understand him), that 500 gross per month is about the limit for a 1s. 1½d. article, to be far out of the way. St. Jacobs Oil has merit in it; it is so recognised by all classes of people everywhere. The only sticking-point I have ever found has been in my power of endurance—that has been reached many times.

It is quite true, as I stated in my previous letter, that competition in the article and in the style of advertising plays an important part; but in my opinion it has nothing whatever to do with a limit of sale which cannot stand still—it will either go up or down according to circumstance which governs; and that which governs most, everything else being equal, is the art of the advertiser.

Yours very truly,

45 Faringdon Road, E.C.

WILLIAM E. GEDDES.

The Syphon Trade.

SIR,—Noting correspondence on "Syphon-hooks," I enclose sample of ticket from one used by me for three years, which I find answers well. The counterfoil is delivered to customer, not stuck on syphon. Once a month I make up the hook, and collect the empty syphons, making a list of the number remaining with each customer, which are added to the list the following month. In addition, I place my own labels on syphons. I remain, your obedient servant,

New Southgate, June 12.

J. F. FIELDSEND.

Syphons } Full }	Syphons } Empty }	Syphons } Full }	Syphons } Empty }
Date _____		Date _____	
Signature of Receiver }		From J. F. FIELDSEND, Dispensing Chemist, NEW SOUTHGATE, N.	

SIR,—My experience is that, to avoid loss, it is better to make a charge for the syphon when it goes out, and intimate to the purchaser that the money will be returned when the syphon is brought back. If the customer is well known to me, I do not ask for the money to be deposited, but enter the syphon and contents in the day-hook in the usual way, and request the purchaser not to pay until the syphon is returned. To obviate the risk of buying syphons not sent out by me, I always use my own labels, and the syphon must have this label on when it is returned, or it will not be allowed for. I quite understand, however, that every dealer must be guided by the class of trade he has and where there is any casual trade from lodgers the deposit system is the only one which will act satisfactorily, and with the least trouble.

Yours truly,

OBSERVER. (62/46.)

SIR—Before seeing your article on above, I kept a syphon book in which all syphons lent were supposed to be entered and crossed through on their return, but I found it very unsatisfactory, chiefly because of omissions to enter and cross off. In consequence of your valuable hints on the subject, I have adopted a double label, a part of which is stuck on the syphon and the other retained. A hundred of them bound like a cheque-book forms a complete record. So far as my, as yet small experience goes, I am satisfied with it, for it certainly ensures a record, as no syphon is allowed to go out without a label, and it also has secured the return of the syphons much quicker.

Thanking you for your many hints,

I am, yours faithfully,

Baildon, Yorks.

HY. ROBINSON.

Appended is a copy of the label and counterfoil.

No.	Date	No.	Date
This SYPHON			
Is on Loan, and if not returned in fourteen days, it will be charged 2s.			
Name _____			
HY. ROBINSON, Chemist, Wine & Spirit Merchant, BAILDON.			
Returned _____			

Liquids in Aerated-water Bottles.

SIR,—I note in this week's issue a letter from Mr. W. Tooke, secretary Mineral Water Association, in which he states that it is illegal and unfair to supply customers in a mineral-water bottle bearing the name of the bottler engraved in the glass, and cites a case at Birmingham to justify his contention. I should like further particulars of that case, and should specially like to hear whether the offender supplied both bottle and oil, or simply supplied the oil in a bottle

provided by his customer. If the latter, I cannot understand the decision. If a customer comes for a pennyworth of hair-oil, and hands a pop-bottle (with engraved name, &c.), am I to cross-examine her as to whether she has paid for that bottle or not before I supply?

This matter may not touch "the highest class of chemists and druggists," whom Mr. Tooke extols, but it affects very much all chemists who have to pick up their crumbs amidst the masses.

What I fail to grasp is, how can the vendor of a pennyworth of hair-oil be made responsible for the vessel which his customer provides to carry the same home? It seems to me just as rational to state that a potato-merchant can be proceeded against for selling a hundredweight of potatoes in a sack supplied by the customer, but branded with a miller's name.

Yours, &c.,

A CHEMIST TO THE MASSES. (61/57.)

[The law would, no doubt, apply just the same to the potato-sack as to the aerated-water bottle, but, like our correspondent, we should like to get particulars of the Birmingham case.—ED.]

SIR,—It seems unfair that bottles bearing trade-marks which have been paid for, cannot be used for other purposes. The Chemists' Aerated Water Association, for instance, require payment for bottles and waters at once. Now, if we cease dealing with them, and have some bottles on hand, can we not use them for what purpose we like? They are ours—we have bought them.

Yours very truly,

Wellington, Salop,
June 15.

JAMES BATES (LIMITED).

Halviva.

Mr. J. Halcrow, manager of the Halviva Company, writing to us in regard to Mr. G. A. Williams's letter, states that "halviva" is prepared solely from kreak, the dried plant of *Andrographis*, also called *Justicia paniculata*, nat. ord. Acanthaceæ. By the process adopted in the manufacture of "halviva," the tonic properties of the herb are concentrated; hence its great value as a substitute for quinine.

DISPENSING NOTES.

The opinions of practical readers are invited on subjects discussed under this heading.

A Dentist's Prescription.

SIR,—The West-end dentist evidently left out the all-important liq. from his prescription. The liq. hyd. perchlor., B.P., practically represents a solution containing 1 part of hyd. perchlor. in 1,000, and if added to an equal quantity of peroxide of hydr. will make a solution of hydr. perchlor. containing 1 in 2,000, a very suitable strength for syringing the antral cavity.

FREDERICK LONNON,

Denmark Hill, S.E.

L.D.S. Eng.

SIR,—Mr. Besant's letter in your last issue under the above title has led us to give our experience, in February last, of a similar prescription about which he writes, also from a West-end dentist.

Ours ran:—

				Oz.
Peroxide of hydrogen	..	..	..	2
Perchloride of mercury	..	..	..	2

In blue bottle.

There were no directions. As the address of the prescriber was upon the note-paper, we decided to wire, giving the prescription in full, to ask whether the form was as desired. The reply came: "It is quite correct." Not being helped at all by such a curt answer, we again wired to know if we should use the salt itself as ordered, the reply this time being: "Use liq. hydrarg. perchlorid., B.P."

It will be noticed there was no acknowledgment in either

of the replies—which, by the way, were prepaid by us—of the trouble we were taking to ensure his patient getting what he wished. Being out of pocket through cost of telegrams and replies, we sent on the account, thinking, perhaps, it might draw a response; but up to the present nothing of the kind has reached us.

We are quite ready to own that we only did our duty; still, we cannot help feeling that there has been a great lack of courtesy on the part of the prescriber who gave such unnecessary trouble and expense by his carelessness.

Yours truly,

103 Old Town Street, Plymouth. BALKWILL & Co.

The Doctor Again.

SIR,—Will some of your readers state the correct way to dispense the following prescription?—

Sodii benzoat.	gr. 48
Spt. chloroform.	℥ij.
Syrup. scillæ	℥ss.
Aque ad.	℥ij.

M.

It had been dispensed somewhere in the City without being suspended, the result being that the benzoic acid thrown out was sticking round the sides of the empty bottle. When I dispensed it I suspended it, and the doctor said it ought not to be suspended, but that the benzoic acid should float through it. I think differently, so would like the opinion of some practical readers.

Yours faithfully,

Edinburgh, June 15. J. McK. (62/20)

52/37. *Aperiens*.—Orange-flower water often becomes gelatinous, and so do mixtures containing it, especially if syrup is amongst the ingredients.

62/43. *Tommy*.—Two hundred grains of powdered tragacanth in an 8-oz. mixture is an obvious error. Use $1\frac{1}{2}$ oz. of the mucilage, and note the fact on the prescription.

MISCELLANEOUS INQUIRIES.

Correspondents who ask replies to be inserted "this week" or "next week" are reminded that we do not guarantee replies, and that their insertion depends upon the space at our disposal for such matters. It is generally impossible for us to find room for queries the same week they are received.

55/35. *A. T. D.*—The Colour of Flowers remains unimpaired for a long time after drying if care is taken in drying to use good paper which is neither alkaline nor acid. The addition of any preservative is unnecessary, but a great deal depends upon the "mountant." The best thing is tragacanth paste, the formula of which we have given several times—last in our issue of April 27, 1889, p. 596. Refer to that, or get the number. This paste never becomes sour, and it is to some degree antiseptic. Of course the plants or flowers when mounted must be kept in the dark if you wish to preserve the colour.

57/9. *Frank English*.—(1) **Children's Hair Lotion** (insecticidal). Make a vinegar of stavesacre by digesting 1 part of the powdered seeds in 6 parts of acetic acid for several days, then filtering. This is to be used in the following:—

Vinegar of stavesacre	$\frac{1}{2}$ oz.
Glycerine	1½ "
Oil of rosemary	15 drops
Oil of lavender	15 "
Rectified spirit.	2 oz.
Concentrated Infusion of quassia	20 "

Mix and filter.

(2) **Driffeld Oils**. According to Hager this may be made by boiling fresh wormwood, savin, and arnica leaves in olive oil until each is crisp and the water is driven off. After

straining and cooling add to the oil a sixtieth of its volume of a mixture of oils of rosemary, thyme, and juniper.

57/20. *Timon*.—Manufacturers of soluble essences will supply you with a citron colouring, which alone will be suitable for the lemon cordial. For the ginger cordial use it and caramel. You should get the dry citron colouring. It is more permanent than saffron.

49/65. *Exper. Doet.*—**Developing Over-exposed Plates**.—Our photographic contributor writes in regard to last week's reply:—"The usual rule is to add bromide or acetic acid, both of which are powerful restrainers, and act by forming a double compound with the silver sub-salt formed by the action of light in the first case, and in the second by some action which is not yet definitely understood, as reducing the alkali has not the same result. In the case of over-exposure, the great desideratum is to use as much as possible of the so-called surface-salt to obtain density, which is always the want with over-exposure; and the addition of bromide is made to form the double compound of silver sub-bromide and bromide, which is less easily reduced by the developer."

17/7. *A. G. (Liverpool)*.—We regret to have overlooked your query. Dr. Sims Woodhead gives the following directions for **Staining Diphtheria Bacilli**:—It is only necessary to remove a small fragment of the false membrane by means of a piece of absorbent cotton tied firmly to a pair of forceps; from this it is transferred to a scrap of blotting-paper, and thence to a cover-glass, where it is broken down as finely as possible, heated over the flame in the ordinary fashion, and stained with Löffler's alkaline methylene blue, or by a method adopted by Roux and Yersin, who use a blue composed of equal parts of aqueous solution of violet dahlia and methyl green, with water added until a clear, but not too deep, blue is obtained. A drop of this is placed on a slide, the cover-glass on which the fragments are dried is inverted and lowered on to it, the superfluous fluid is removed with a piece of blotting-paper, and the organism is examined at once. The organisms occur in small groups, as short, straight, or curved rods, with ends sometimes pointed, sometimes curved.

63/14. *Ten-and-Sixpence Wanted*.—Your grievance is a little too small.

60/3. *F. Rose*.—**Nutritive Suppositories**.—These are generally made from peptonised beef-extract, with a gelatine basis. The latter is made from—gelatine 1 part, water 4 parts, glycerine 3 parts, prepared s.a. and evaporated to 5 parts. This may be used with an equal weight of the peptonised extract.

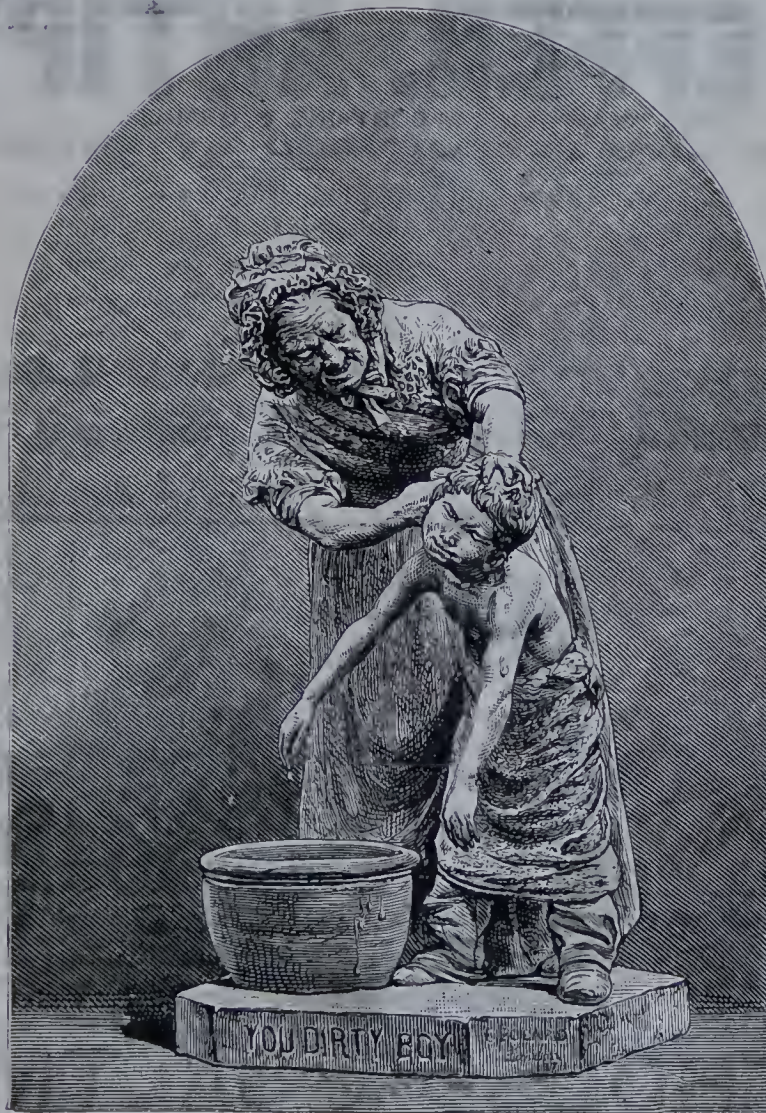
227/2. *Menthol*.—(1) The readiest test for the **Strength and Purity of Insect-powder** is to try the effect of it upon a few blackbeetles or house-flies. Genuine powder yields about 7 per cent. of ash on incineration, and anything yielding below 6.5 or above 8 per cent. is suspicious. (2) See the article "How Menthol Cones are Made," in our issue of May 24, 1890.

54/58. *Piscator*.—We have not seen the paste, and do not know what it is used for. Please give fuller particulars.

58/12. *J. P.*—The formula for moth-preventive given in last issue may suit your purpose. Camphor and naphthalene are the best preventives and destroyers. Black pepper is also used, but is not generally applicable.

JAHNOKE'S PATENT METALLIC BOXES.—We refer our readers to the statement on p. 845.

Pears' Soap



(25 inches high.)

These celebrated Statuettes are supplied free to Retail Buyers upon conditions to be obtained on application to

A. & F. PEARS,
71-75 New Oxford Street, W.C.

BURROUGHS, WELLCOME & CO.

LIBRARY

No.

CURTIS & Co's

GRAN. EFF. BISMUTH, PEPSINE & STEEL.

[ESTABLISHED 1820.]

BISMUTH AND PEPSINE	5 grs. each to 3j.
BISMUTH, PEPSINE AND STRYCHNINE...	5.5 & $\frac{1}{50}$ grs. to "
BISMUTH, PEPSINE AND QUININE ...	5.5 & 1 " "
BISMUTH, IRON AND QUININE ...	5.5 & 1 " "
BISMUTH CITRATE	5 " "
BISMUTH, IRON AND STRYCHNINE ...	5.5 & $\frac{1}{50}$ " "

[ESTABLISHED 1820.]

IRON AND BISMUTH	5 grs. each to 3j.
IRON, QUININE AND STRYCHNINE	5.1 & $\frac{1}{50}$ grs. to "
IRON AND ARSENIC	5 grs. & 3 m. (Fowler's) "
IRON AND PEPSINE	5 grs. each to "
IRON AND QUININE	5 & 1 grs. " "
IRON, QUININE AND PEPSINE ...	5.1 & 5 " "

GRAN. EFFER. ANTIPIYRIN

EACH TEASPOONFUL CONTAINS 8 GRAINS.

ORIGINATED AND INTRODUCED BY CURTIS & CO.

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THE TREATMENT OF GASTRIC ULCER

(As enunciated by Bristowe, Fagge, Cruveilhier, and others).

THE difference in opinion as to the treatment of this often fatal disease was at one time not inconsiderable. On the one hand were the advocates of powerful astringents, such as silver nitrate and oxide; on the other were those who depended solely upon opium, almost empirically; whilst few paid much attention to the far more important duty of resting the organ.

Bristowe says :

"Attention to diet is of the utmost importance. The patient must be nourished, and yet all the digestive actions of the stomach are inimical to the cure of the lesion. We must be especially careful to avoid overloading the stomach. With this object it is important to administer

as little food as

is compatible with the maintenance of life, to give it in small quantities at a time, and to select food of such a kind as will impart nourishment without causing undue irritation of the stomach. Pounded raw meat may be employed. It is sometimes necessary to feed the patient for a time by means of Nutrient Enemata only." The latter is a method strongly advocated by

Hilton Fagge, who remarks :

"Life may be prolonged in this way for two or three weeks, a period which is probably long enough to enable a gastric ulcer to take on a healing action, even if it is not sufficient for its complete cicatrisation." This is especially valuable in those very urgent cases of persistent vomiting, which symptom alone indicates the necessity for rest of the organ.

The principles are therefore laid down in a clear and unmistakeable measure; the details of the application of them will be determined by the nature and severity of the case.

One very important feature is the giving of small quantities of appropriate food at intervals, as suggested by WM. HUNTER and CRUVEILHIER, especially when vomiting is troublesome.

The application of these principles satisfactorily has till within the last few years been almost impossible owing to the absence of appropriate material.

Milk, pure or diluted, held its own; but the inevitable formation of caseous masses always constitutes a great danger. To obviate this it was peptonised—so producing a compound whose nauseous characters counterbalanced its safety. These difficulties are at once overcome, and a scientific problem solved, by the administration of ¹ LIQUOR CARNIS (Caffyn), a solution of Raw Beef Juice, which may

not only be given by mouth

with absolute safety, but in the form of ¹ Suppository presents a perfect form of Rectal Alimentation; or the LIQUOR CARNIS may be diluted with tepid water and used as an Enema, with the double advantage that the frequent painful thirst is quenched.

As it requires practically no digestion, the stomach is physiologically at rest; and this is the chief point in the treatment. ² CARNIS JELLY (Caffyn) will be found equally serviceable and safe, forming, as it does, a pleasant variation in the somewhat tedious course.

BRISTOWE has suggested "mixing a little sugar or sweet jelly with pounded beef." A safe and delicious combination upon this line is found in ³ MALTO-CARNIS (Caffyn), particularly as it contains a stimulant which has none of the irritating or exciting properties of alcohol.

In conclusion, there will be found in these preparations a ready and scientific means of carrying out the principles so clearly enunciated by BRISTOWE, FAGGE, CRUVEILHIER, and others.

¹ LIQUOR CARNIS (Caffyn).—"A nourishing fluid, consisting of the Uncooked Juice of Meat, or Muscle plasma, permanently preserved by the addition of a definite quantity of a Carbohydrate.—BRITISH MEDICAL JOURNAL.

² CARNIS JELLY (Caffyn).—Contains two-thirds (66%) of Liquor Carnis (Caffyn), and possesses all the stimulating substances characteristic of ordinary Beef-Extract and Liebig's Extract of Meat, as well as the soluble Albuminoids or Nourishing material present in Raw Meat Juice. May be eaten cold as a "Jelly," or taken hot in the form of "Beef-tea."

³ MALTO-CARNIS (Caffyn).—Contains two-thirds (66%) of Liquor Carnis (Caffyn) (Uncooked Juice of Beef) in combination with Extract of Malt and Cocoa.

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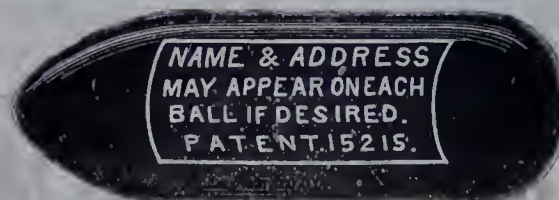
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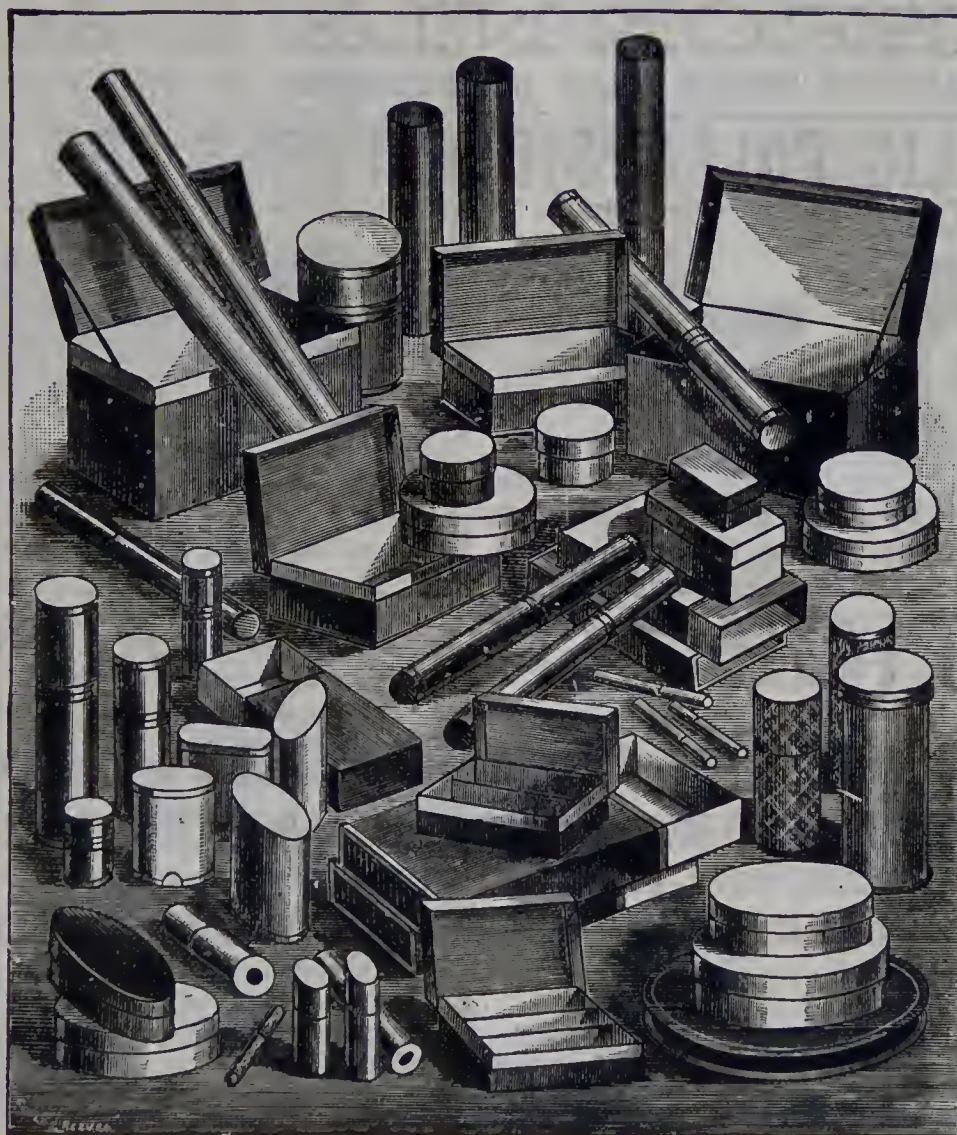
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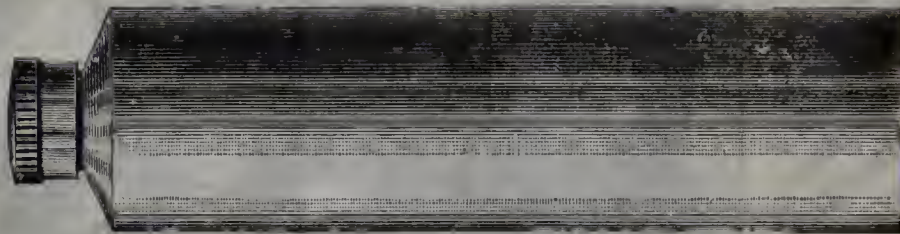
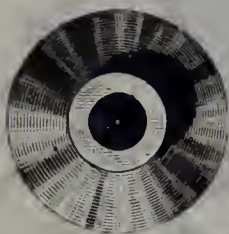
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SQUIRE KNIGHT'S EYE OINTMENT.

THE
SURVIVAL
OF THE
FITTEST.

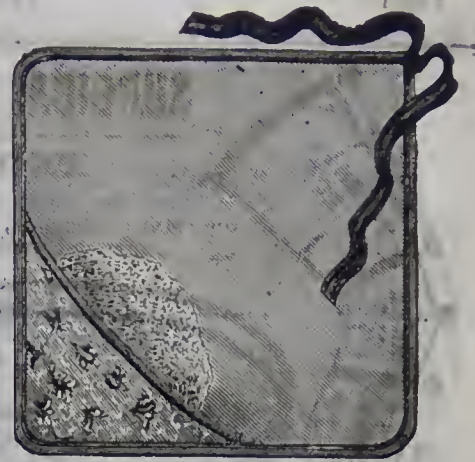
One of the oldest Eye Ointments in the market. Secured and held a splendid sale without advertising. The present proprietor, W. H. Richardson, F.C.S., Chemist, Dudley, desires to advise Chemists that Squire Knight's Eye Ointment is being extensively advertised. As an increased and extending trade is sure to result Chemists would do well to stock it. At all Wholesale Houses.

Correspondence to the Head Depôt at Dudley will always receive prompt attention.

BARCLAY & SONS, LTD.
**BARCLAY'S NEW CHECK
SPONGE WRAP**
WITH POCKET (WATERPROOF).

Size—18 inch × 18 inch; each 1/8

„ 24 inch × 24 inch; each 2/-

**95 FARRINGDON STREET,
LONDON, E.C.**
Established upwards of a Century.

VINCENT WOOD'S INVENTIONS.

TRUSSES.

Ask your Wholesale Dealer for my quality 1 Speciality Truss in Mole-skin and Bazil. Colours—Buff, Dove, and Pink. Per doz., Single, 11/6; Double, 18/6. Sizes to 40 inches. Springs warranted.

"EUREKA" GALVANO-ELECTRIC BATTERY BELT.


1 Power, 8 Batteries, 8/6 each.

2 „ 16 „ 12/6 „

3 „ 24 „ 16/6 „

SPINE BANDS, as sketch, 30/ per dozen.

Retail at 5/6 each.

To PREVENT ERRORS mark at orders—

VINCENT WOOD,
MANUFACTURER OF SURGICAL APPLIANCES,
3 St. Andrew's Street, HOLBORN CIRCUS, E.C

Telephone 6757. Established 1840. Telegrams—"ACME LONDON."

BAILEY'S PATENT
**RUBBER
"COMPLEXION"
BRUSH.**

 Retail for 3s. 6d. each.
Price 25s. per dozen.

Used with a little soap in the daily ablutions, the gentle friction of this brush makes the skin beautiful, soft and smooth, effectually eradicating all blemishes, blotches, wrinkles, coarse lines, &c., and entirely superseding the poisonous cosmetics and face-washes now in use. It is simply invaluable for bathing the delicate skin of infants and children.


BAILEY'S RUBBER TEETHING RING
(PATENTED)


We are also the Makers of BAILEY'S BATH and FLESH BRUSHES price 42s. per dozen; RUBBER TOILET BRUSHES, prices 8s. and 17s. per dozen; and RUBBER TOOTH BRUSHES, price 6s. and 6s. 6d. per doz.

Of all Wholesale Houses, or direct from the Manufacturers,
DAVID MOSELEY & SONS,

14 Aldermanbury Avenue, LONDON, E.C.

Ardwick, MANCHESTER; And 57 Miller St., GLASGOW.

HAMBRO SPECKLED

TRADE MARK
REGISTERED.
All Orders by Post receive immediate attention.
LEECHES!

Warranted Healthy. Wholesale and for Exportation. Direct from Marabes.

FITCH & NOTTINGHAM,

LEECH BREEDERS,

4 CANONBURY SQUARE, LONDON, N.

By Royal



Letters Patent.

**THE TEETHING PADS TO SELL.
THE "LILY" BABY COMFORTER.**

The teats are seamless, and always retain their proper shape.

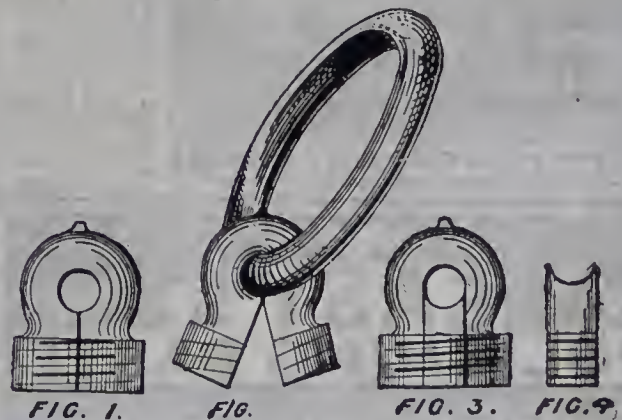
THE CHILD CANNOT POSSIBLY IMBIBE AIR.

The chief feature of this invention is the free ingress and egress of air into and from the teat during suction.

4d., 6d., 9d., and 1s. Retail.

All Patterns may now be had, fitted with Marriott's New Patent Ring Socket, No. 17,135.

For inserting Bone, Indiarubber, and other Rings into Teething Pads, Baby Comforters, or other articles without cutting the ring, which is guaranteed not to break.



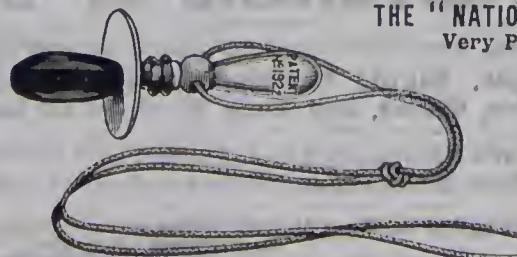
NEW DESIGN JUST OUT.

THE "LILY" DEWDROP. Price 6d.
With Hard Rubber Pad one side of Ring and Blind Soft Teat at the other.

THE "LILY" BABY SOOTHER

For the Million.

"Baby's Comfort, Mother's Comfort also."

 THE "NATIONAL" DESIGN.
Very Popular.


3d. Retail.

4d. with

Hard and Soft

Teats.

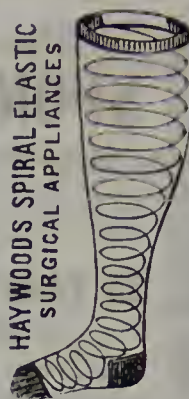
 Patentees and Manufacturers, **E. MARRIOTT & CO., HASTINGS.**
And of all Wholesale Houses.

SURGICAL APPLIANCES.**TRUSSES.**

Common, Salmon & Ody's Cole's, Moc-
Main, Scrotal, and all other most
approved principles made to order.



HAYWOODS SPIRAL ELASTIC
SURGICAL APPLIANCES



PATENT 4,681. (Scamless.)

**MAGNETIC BELTS AND APPLIANCES.**

Elastic Surgical Stockings, Knee Caps, &c.
Patent Spiral Seamless Elastic Stockings,
&c.

Patent Pile Surgical Elastic Stockings.
Elastic Supports for Lawn Tennis, Cricket,
Lacrosse, and other Athletic Sports.
Bath and Rubbing Gloves.
Bathing Caps and Belts.

Trusses of every description.

Poro-plastic Jackets.

Bandages — Indiarubber, Elastic, Lint,
Cotton, Sayres', &c.

Chest Expanding Braces.

Horse Ear Caps & Veterinary Appliances.

Suspensory Bandages.

Ladies' and Gentlemen's Belts.

Hot Water Bottles and Covers, Respirators, Inhalers, Bronchitis Kettles, Throat Sprays,
Waterproof Coats, Cloaks and Driving Aprons, Footballs, Shin Guards, and Athletic Appli-
ances, Druggists' Sundries, Invalid and Nursery Appliances, &c.

MANUFACTURER AND PATENTEE:

J. H. HAYWOOD, CASTLE GATE, NOTTINGHAM.

London Agent—HENRY C. QUELCH, St. Paul's Chambers, 1 Ludgate Square, E.C.

'ST DALMAS' LEICESTER

**Improved
Adhesive
Plaster**

ON FINE FLESH COLOURED CAMBRIC

USED BY SURGEONS ALL
OVER THE WORLD.

In ONE WEEK three curious uses were reported for which

"THE LEICESTER" IMPROVED ADHESIVE PLASTER,
On Fine Flesh-coloured Cambric.

is found the best after trying other makes (in the first case, nearly every known plaster). A well-known actor said he had the good fortune to meet with it in the South of England, and had inquired for it wherever he went since. It is the only plaster he can find to answer for fixing false hair, &c. A chemist in the North wrote and said a lady violinist would have nothing else; she uses it to make a pad to protect her fingers. A chemist in Yorkshire has a customer who uses plaster to keep his eyes open, and nothing will hold the lids up so well as "The Leicester" Improved Adhesive Plaster on Fine Flesh coloured Cambric. *Surgeons in all parts are frequently commending it. The sale rapidly increases*

**THE EASIEST THING IN THE WORLD
EASY'S
POLISHING PASTE**

FOR METALS, GLASS &c. NON INJURIOUS
A WONDERFUL POLISH.
EASY & CO. HANLEY STAFFORDSHIRE

ARTIFICIAL HUMAN EYES FROM GLASS.

Excellent Quality. £8 per 100.

Plain Clinical Thermometers, in wood cases, 10/ per doz. Clinical Thermometers, with imperishable index, on massive tubes, about 4 1/2 inches, in boxwood cases, 16/ per doz.; in nickel, 18/ per doz. Clinical Thermometers, several kinds. Glass Syringes in all kinds and sizes, at wholesale prices. Homœopathic Medicine Glasses of all kinds.

REFERENCES REQUIRED.

OSCAR BOCK, Kiel (Germany), Manufacturer of all kinds of Instruments from Glass.

M. BAILEY & CO.

MANUFACTURERS OF DRUGGISTS' SUNDRIES.

M. B. & Co. beg to call the attention of the Trade to the following articles manufactured by them:—

Glass Syringes, Nipple Shields, Breast Exhausters, Fittings for Feeding Bottles, Tubes, and Tube Work in all its branches, &c., &c.

Sole Proprietors and Manufacturers of J. Brooks & Co.'s celebrated Specialities:—Winter Cream, Lip Salve, Solidified Camphor Cream, Glycerine Jelly, Perfumery, &c., &c.

Buyers are cautioned against imitations of these World-renowned preparations. None are genuine unless bearing our Registered Trade Mark.

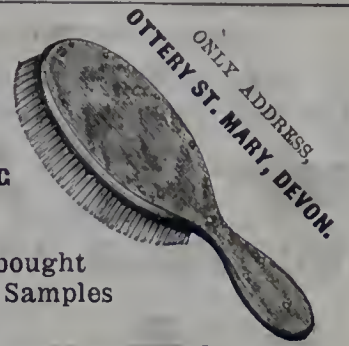
MAY BE OBTAINED THROUGH ANY OF THE WHOLESALE HOUSES. WHOLESALE AND EXPORT ONLY FROM

M. BAILEY & CO., 32 and 34 Buckingham Road, KINGSLAND, N.



ONLY ADDRESS,
OTTERY ST. MARY, DEVON.**WHEN STOCKING TOOTH BRUSHES**

BUY RELIABLE GOODS.

A VALUABLE CUSTOMER IS OFTEN LOST THROUGH PURCHASING
A FAULTY TOOTH BRUSH.We positively guarantee all our best Brushes, which can be bought
at the same price as the ordinary common make. Send for Samples
direct or through a Wholesale House.ONLY ADDRESS,
OTTERY ST. MARY, DEVON.**BIDWELL BROTHERS, L^{TD.}**ESTABLISHED FIFTY YEARS,
SPECIALISTS in the Manufacture of TOILET
BRUSHES

PARTICULARLY SUITABLE FOR THE CHEMISTS AND DRUGGISTS' TRADE.

INVENTORS, PATENTEES, AND MANUFACTURERS OF THE

"SILVERDRAWN" TOOTH BRUSHES,Justly Celebrated for their Superior Strength and Durability. The best Brush in the Kingdom at the Price. *Loose Hairs an impossibility.* Made in thirty-six different patterns and various stiffnesses of Hair; the grooves in the back are filled in with Silver Cement, but Red, Blue, or White Cements can be substituted if preferred.

REG. TRADE MARK NO. 43601.

THE

"Sovereign" TOOTH BRUSH.

BIDWELL'S PATENT, No. 507.

The perfection of a Tooth Brush; reliable and economical—wearing twice the time of an ordinary
made Brush. Made with Improved Unbleached White Bristles.The bristles are carefully selected and specially prepared, and although *white* in colour are warranted *all unbleached*, and have not been subject to the fumes of brimstone (a process all other bristles undergo), thereby ensuring elasticity, strength, and durability. The grooves in the backs are filled in with *Patent Gold Enamel*, which is imperishable, and renders the Brush watertight, and which cannot be dissolved by any liquid, or affected by extreme climates. This great improvement also makes the Brush both in substance and appearance of the highest standard quality. In other Brushes the grooves are filled in with Red Sealing Wax or other cements, that fall or wash out, or are dissolved by the various Mouth Washes now in use.

THEY RECOMMEND THEMSELVES AFTER A FEW TIMES USING.



A Brush of the usual make after a few weeks' wear.

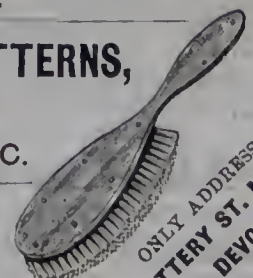


The "Sovereign" Brush after a few weeks' wear with fair usage.

HAIR BRUSHES IN TWO HUNDRED DIFFERENT PATTERNS,

Varying from 7/6 per dozen to 70/-.

NAIL, SHAVING, FLESH, CLOTH BRUSHES, ETC.

ONLY ADDRESS,
OTTERY ST. MARY,
DEVON.ONLY ADDRESS,
OTTERY ST. MARY,
DEVON.

MANUFACTORY.

"Eclipse" Glass Works,
Lea Bridge, Clapton, London, E.

Prize Medal, Adelaide Exhibition, 1887.
Award of Merit, Melbourne, 1888.

OFFICES AND WAREHOUSES.

381-3 KINGSLAND ROAD,
LONDON, E.

E. A. HEARN & CO.

WHOLESALE AND EXPORT GLASS BOTTLE MANUFACTURERS.

Makers of EVERY DESCRIPTION of Glass Bottles, either PLAIN or STOPPERED, in

WHITE FLINT, AMBER, BLUE, MEDICAL GREEN, ACTINIC GREEN, &c., &c.
OR ANY COLOUR MADE TO ORDER.

FEEDING BOTTLES IN ALL SHAPES,
PLAIN NECKS OR SCREW STOPPERED.

SPECIALITY.—First-class Quality at Reasonable Prices.



TRADE MARK.

DISPENSING BOTTLES.

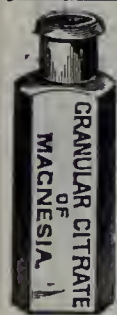
OUR SPECIALTY.

FLATS, OVALS, & SQUARES.

Without exception the prettiest Tinted Bottles in the Market
Equal to the best make. Prices moderate.

JOHNSEN & JÖRGENSEN

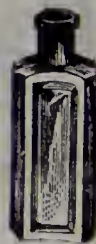
5 SAVAGE GARDENS, LONDON, E.C.



GLASS
BOTTLES
OF THE
BEST QUALITY.

DISPENSING, PICKLE, SAUCE, OIL,
MINERAL WATERS, &c., &c.
SAMPLES AND PRICES ON APPLICATION.

E. YOULDON,
EAST LONDON GLASS BOTTLE WAREHOUSE
36 to 40 Great Garden Street, Whitechapel,
LONDON, E.



DISPENSING BOTTLES & PHIALS.

REDUCED PRICES.

3 and 4 ..	6 and 8 ..	12 ..	16 ounce.
7/6 ..	8/6 ..	12/- ..	16/- per gross.
		CRYSTAL (BLUE TINTED).	
3 and 4 ..	6 and 8 ..	12 ..	16 ounce.
9 ..	10/- ..	14/- ..	18/- per gross.
		WHITE PHIALS.	
3/8 ..	1 ..	1 1/2 ..	2 ounce.
	4/- ..	4/9 ..	5/6 per gross.
		WHITE PHIALS (SUPERIOR QUALITY).	
1 1/2 ..	1 ..	1 1/2 ..	2 ounce.
4/3 ..	5/3 ..	5/9 ..	6/3 per gross.

I. ISAACS & CO.

GLASS BOTTLE MANUFACTURERS
25 FRANCIS STREET, Tottenham Court Road, LONDON.

BANKERS: LONDON AND WESTMINSTER BANK.

ESTABLISHED UPWARDS OF 50 YEARS.

GARDNER'S

PATENT

RAPID SIFTERS & MIXERS.

May be seen working at
STAND 237, Machinery Motion
Department,

ROYAL SHOW, DONCASTER,
JUNE 20 to 26, 1891.

GARDNER,
ENGINEER,
GLOUCESTER.



STANDARD
PATTERN.

KILNER BROTHERS

MANUFACTURERS

OF

GLASS BOTTLES

ALL SHAPES, SIZES, AND COLOURS

FOR

DISPENSING

In Green and White Flint. All the required sizes in Flat, Oval, Round, Octagon, and Direct Square. The "K" Brand is well known, and is in constant and increasing demand.

FEEDING.

"OUR BABIES' BOTTLE."

Fitted in a large variety of styles to suit all classes of buyers
Careful attention given to quality of Bottles and Rubber.
Increasing sales testify to the satisfaction given by these Feeders.

MINERAL WATERS.

Codd's, Bulbs, and all the best Stoppered kinds; full size and splits.

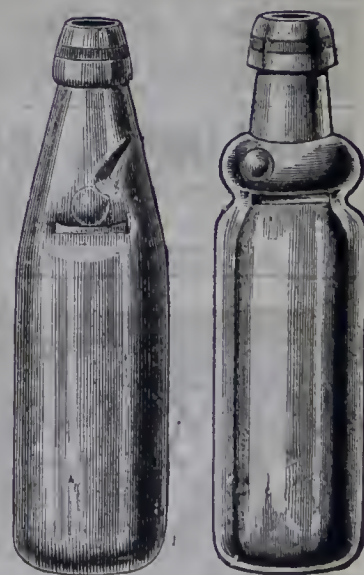
Also CORK BOTTLES to suit all tastes.

VAN BOXES and CASES

To contain above and many other kinds of Bottles.

BUYERS ARE CORDIALLY INVITED TO CORRESPOND.

Samples, Price Lists, and Special Quotations for large quantities sent on application.



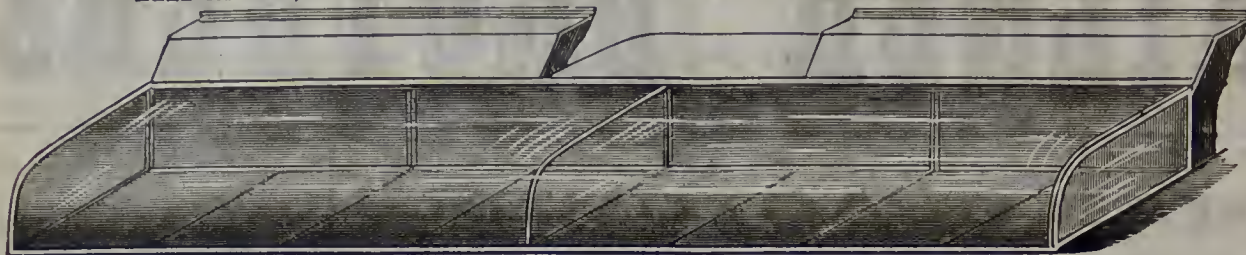
➡ No. 3^A GREAT NORTHERN GOODS STATION, KING'S CROSS, LONDON. ➡

ELKANAH NATALI

(Established 20 Years),

SHOW CASE MAKER & SHOP FITTER

MAKE MY OWN, AND WORK GUARANTEED. HUNDREDS OF TESTIMONIALS AND REFERENCES.



Removed from 207 to 242 Old St. (Shoreditch End), LONDON. Workshops—Henson St., E.C. (Only Addresses)
No connection with any other house of the same name. Please address in full.

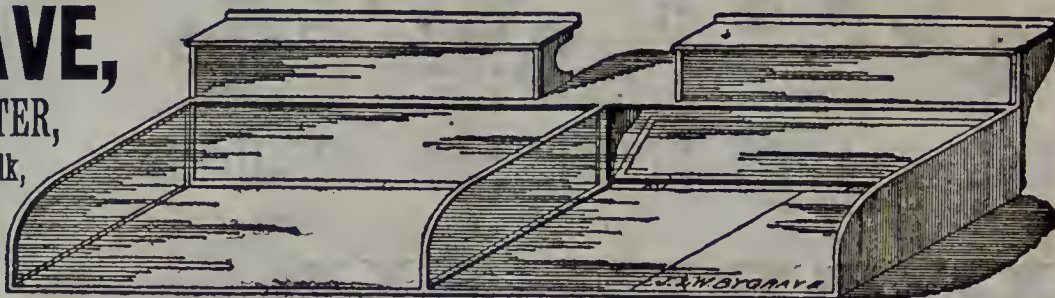
BYGRAVE,

SHOP FITTER,

111 Shepherdess Walk,

CITY ROAD,

LONDON, N.



Bent-top plate-glass Counter Showcase, in French polished mahogany, or ebonized, with two upright mirror plate-glass fronted shelves, and table in centre for serving over, and mahogany falls at back lined with mirror plate glass, inside fitted with crimson velvet trays—if 5 ft. long, 18 in. wide, 8 in. high (total height 13 in.), £5 10s.; 5 per cent. off for cash.

"THE CHEMIST" DISPENSING COUNTER.

6 feet long by 2 feet wide .. £24
If the Dispensing Screen only, £12

This handsome Dispensing Counter is manufactured in Spanish mahogany, and of the best workmanship, so that it will stand any climate. The counter has a solid mahogany top, and plate-glass case front. The centre part fitted to take sponge. A mahogany screen on top, consisting of two plate-glass cases, with shelves inside, and large plate-glass mirror in the centre, and three glass tablets with gold writing in ornamental mahogany carved work. The back of screen fitted with small shelves and a glass poison cupboard. The inside of counter fitted with strong counter drawers, label and cork drawer, open shelves, &c.



NOTICE TO THE TRADE.

In consequence of inferior Second-hand Goods being sold for our make, we have found it necessary to protect our reputation for best work with a Trade Mark, as above, and unless goods are so stamped we cannot be answerable.

BOWLING & GOVIER

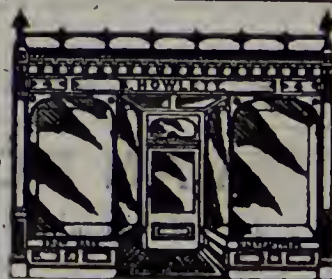
Manufacturers of High-class Shop Fittings,
GUN ST., BRUSHFIELD ST.
BISHOPSGATE, E.C.

ESTABLISHED 1830.

S. HOWLETT,

MEDICAL AND
GENERAL SHOP FITTER,
Shop-Front Builder and Show-Case Maker.

EXPORT ORDERS CAREFULLY PACKED AND SHIPPED.



SHOPS FITTED by Contract, in Town or Country, with every requisite, on the most improved principles, and at lowest prices.

NUMEROUS REFERENCES may be obtained
Leading Chemists in all parts of the Kingdom.



A LARGE STOCK of New and Second-hand Fittings and Cases to be sold very CHEAP.
CABINET FITTER to the Pharmaceutical Society of Great Britain.
PLANS and ESTIMATES SUPPLIED.

Manufactory and Showrooms—4 Lindley St., Sidney St., Mile End Road, LONDON, E.

CARBOLIC POWDER

SPECIAL QUOTATIONS FOR 1-TON LOTS AND UPWARDS.

CARBOLIC PINK POWDER, 5/-, 7/6, and 10/- per cwt., in bags or casks.

HANDSOME LARGE DECORATED BLACK AND GOLD TIN BOXES, holding 1½ lb. (usual 1/- size), 4/6 dozen.
Ditto, **LARGE SIZE** (usual 1/6 size), holding about double quantity, 8/- dozen.

PALE CARBOLIC ACID, 99 per cent. (No. 5), and **CHLORIDE OF LIME** below market prices.
CRUDE CARBOLIC ACID (Brown), 1/- and 1/6 Gallon; also in patent stoppered bottles, labelled.

SANITARY FLUID or **CREOSOL** (to be used with 100 parts of water, making a *milky fluid*), half usual prices.

All goods delivered free in London or suburbs, or to rail or docks.

THE CHEAPEST HOUSE IN THE TRADE.

HAMILTON & CO., LIM., WANDSWORTH, LONDON, S.W.

SALEABLE PREPARATION FOR CHEMISTS.

Trade

HERBICIDE

Mark.

OR

WEED EXTERMINATOR.

FOR GARDEN WALKS AND CARRIAGE DRIVES.

IN 1, 2, 4, 8 & 12 GALLON DRUMS.

A liberal discount to Chemists off the ordinary prices.

READE BROTHERS & CO., MANUFACTURING CHEMISTS, WOLVERHAMPTON.

TO THE WEED KILLER TRADE.

For destroying Weeds, Moss, &c., on Garden Walks, Carriage Drives, Roads, &c.

We desire to point out the special advantages which the sale of our "Acme" Weed Killer affords the Trade

1. The "Acme" Weed Killer is used in the gardens and on the estates of the Gentry in nearly every town in the Kingdom.
2. Our Retail Prices are such as will induce a ready sale, and we make no charge for 1 and 2 gallon tins.
3. We pay carriage on six 1-gallon tins, or on four 2-gallon tins, and on 10 gallons in drums and upwards.
4. Drums are charged at cost price. Full price allowed when returned.
5. By taking a 40-gallon cask, and retailing it in small quantities, the Retailer makes upwards of 140 per cent. profit.

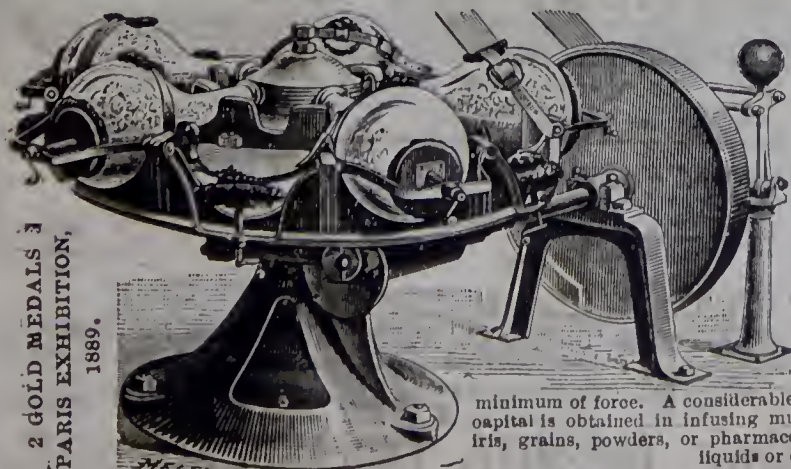
Trade Terms on application.

RETAIL PRICES.—In 1 and 2 gallon tins, 2/- per gallon (tins included); in 5-gallon drums, 1/6 per gallon; 10, 15, and 20 gallons, 1/4 per gallon; in 40-gallon casks, 1/2½ per gallon.

TESTIMONIALS received from Mr. HEAD, Crystal Palace; Mr. IRWIN LYNCH, Cambridge Botanic Gardens; and others.
THE "ACME" WEED KILLER, FOR CHEAPNESS & EFFICIENCY, HAS WON FOR ITSELF A NAME THROUGHOUT THE KINGDOM FAR ABOVE ALL OTHERS.

SOLE PROPRIETORS AND MANUFACTURERS—

THE ACME CHEMICAL CO., Tunbridge, Kent; and Carlton Street, Bolton, Lancashire.



2 GOLD MEDALS
PARIS EXHIBITION,
1889.

These machines are made for 10 or 15 bottles, each containing about 15 litres, as required.

BEYER FRERES,
16 & 18 RUE DE LORRAINE,
PARIS.

**NEW AGITATING
MACHINE**

For macerating and exhausting raw materials in infusion with alcohol, producing 150,000 movements per day in each metal receptacle, with a minimum of force. A considerable economy of time, labour, and capital is obtained in infusing musk, amber, benjamin, civitte, iris, grains, powders, or pharmaceutical products treated with liquids or ether.



MORTAR MILL, HAND POWER.

SHEEP DIPS.

ESTABLISHED 1814.



In Powder, Paste, and Liquid.
Non-poisonous, Poisonous, and
Combined.

Manufacturers for the Wholesale Trade.

**WANTED, CHEMISTS AND DRUGGISTS
AS AGENTS.**

Apply—

QUIBELL BROTHERS,

Manufacturing Agricultural Chemists,
NEWARK-ON-TRENT.

STEINER'S VERMIN PASTE

FOR DESTROYING

RATS, COCKROACHES, ETC.

IN [TRY IT]

3d., 6d., & 1/ Glass Jars; 2/6 & 5/ Tins.



Warranted to Keep for Export.

REGISTERED.

STEINER'S VERMIN KILLER

FOR [NEVER FAILS.]

**DESTROYING
MICE, ETC.**

1d., 3d., 6d., and 1s. Packets.

**STEINER'S INSECT POWDER****PRIME DALMATIAN.****ENGLISH CROOND.**

The most energetic Insecticide.
Kills Bugs, Fleas, and all offen-
sive Insects. Quite harmless to
Domestic Animals.

1d., 3d., 6d., & 1s. Tins (a Bellows).

Also in 7-lb. and 56-lb. Tins, and in Kegs of 1 cwt. and upwards.

**JAMES'S PHOSPHOR PASTE**

FOR DESTROYING

BEETLES, RATS, MICE, ETC.

Sold in 1d., 3d., 6d., and 1s. Glass Jars.



May be obtained through all the
Wholesale Houses, or direct from

THE WORKS, LIMEHOUSE, LONDON, ENGLAND.

DAY & SONS, CREWE.

FARM AND STABLE MEDICINES FOR ALL THE YEAR ROUND.

LARGEST SALE IN THE WORLD.



Cures Colic and Colds in Horses and Cattle.
Cures Scour in all Young Stock.

Instantly relieves Blown Cattle and Sheep.
For Debility, Chills, and Low Condition.

Price 1/8 per Bottle, or 18/- per dozen.

THE RED DRINK.

Cures Fever and Costiveness in Cattle.
Cleanses and Cools the Blood and System.
For Red Water, Indigestion, and Yellow.
Cures Bad Cleansing and prevents Milk Fever.

Price 12/- per dozen packets.

The "EWE DRENCH" acts as above for Sheep,
3/6 per dozen.

THE "PURIFIED" DRIFFIELD OILS.

For Wounds of all kinds in all Animals.
For Saddle and Stake Wounds and Cracked Heels.
For Sore Tents and Swollen Udders in Cows.
For Anointing in bad Lambing and Calving.

Price 2/6 and 6/- per bottle.

THE WHITE OILS.

Unrivalled as a Safe Embrocation.
For Sprains, Swellings, Windgalls.
For Rheumatism, Sore Throats, Weak Joints.
For Corns and Splints when forming.

Price 2/6 and 6/- per bottle.

THE "ORIGINAL" UNIVERSAL MEDICINE CHEST.

For Disorders of HORSES, CATTLE, and SHEEP.

Price, complete with Guide, "Everyday Farriery," £2 4s. and £5.
Sample Chest, £1 4s.

The "ORIGINAL" HORSEKEEPERS' MEDICINE CHEST

Arranged especially for Disorders in HORSES.

Price, complete with Guide, "Everyday Farriery," £2 14s. and £5.
Sample Chest, £1 4s.

Note our only
Address:

DAY & SONS, CREWE, CHESHIRE, ENGLAND.

LIBERAL DISCOUNT TO FOREIGN BUYERS. — AGENTS WANTED.

Beware of
strange imitations

FOR ALL CANINE AILMENTS. SPRATTS PATENT, LIMITED, DOG MEDICINES.

Pamphlets on Canine Diseases for gratuitous distribution. Show Cards and Handbills Supplied.

Address: SPRATTS PATENT, LIMITED, LONDON, S.E.
SPRATTS PATENT (AMERICA) LIMITED, 239 to 245 East 56th Street, NEW YORK, U.S.A.
OR YOUR WHOLESALE HOUSE.

DENTAKON

For Cleaning

ARTIFICIAL TEETH,

EITHER

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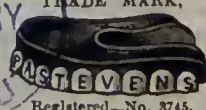
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